NATIONAL MEDICAL STANDARD FOR REPRODUCTIVE HEALTH

Volume I: Contraceptive Services

His Majesty's Government
Ministry of Health

Family Health Division

2001

NATIONAL MEDICAL STANDARD FOR REPRODUCTIVE HEALTH

Volume I: CONTRACEPTIVE SERVICES
Third Edition (*Revised*)

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FAMILY HEALTH DIVISION
August 2001

The publication of this *National Medical Standard for Reproductive Health Volume I: Contraceptive Services* was made possible through support provided by the Office of Population, Center for Population, Health and Nutrition, Bureau for Global Programs, Field Support and Research, U.S. Agency for International Development, under the terms of Award No. HRN-A-00-98-00041-00. The opinions expressed herein are those of the producers and do not necessarily reflect the views of the U.S. Agency for International Development.

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ACKNOWLEDGEMENTS

The *National Medical Standard for Contraceptive Services* was first published in 1991. In order to keep up with advances and changes in contraceptive technology and policy, it was reviewed and published in 1995 as the *National Medical Standard for Reproductive Health (NMS-RH) Volume I: Contraceptive Services.* Once again, I am pleased to publish this third edition of *NMS-RH Volume I: Contraceptive Services*. We have incorporated the latest developments in contraceptive and other reproductive health areas into this edition. Similarly, we have also tried to include the suggestions and comments provided by service providers, managers and policymakers.

This new edition of *NMS-RH Volume I* has been made possible due to the efforts of many people and organizations. It is my privilege to acknowledge the following persons for their valuable contributions:

First of all, a National Task Force Committee was formed to initiate the review process. This committee comprised the following members: Dr. Laxmi Raj Pathak, Family Health Division (FHD); Ms. Anne Peniston, United States Agency for International Development (USAID); Ms. Jeanne Rideout, JHPIEGO; Mr. Ashoke Shrestha, EngenderHealth; Mr. D.B. Lama, United Nations Population Fund (UNFPA); and Dr. Tika Man Vaidya, Nepal Fertility Care Centre (NFCC). I want to express my sincere thanks to the members of this task force committee especially for their support of the need to publish this edition.

I would like to thank the Working Group, which was formed to conduct the initial writing activities for the revision process for this edition. This group comprised the following members: Dr. James A. Litch, JHPIEGO; Mr. Dirgha Raj Shrestha, Engender Health; Ms. Lynn Poole, Engender Health; Dr. Ganesh D. Bhatta, Family Planning Association of Nepal (FPAN); Dr. Jeevan Bhattarai, Chetrapati Family Welfare Centre (CFWC); Mr. Tek Bahadur Dangi, FHD; Dr. Kamlesh Giri, JHPIEGO; Dr. Babu Ram Marasini, FHD; Ms. Radha Rai, EngenderHealth; Dr. Ganga Shakya, FHD; and Dr. Jeffrey M. Smith, JHPIEGO.

Many valuable suggestions/additions were received from Dr. Rachel A. Bishop, Kunde Hospital, Nepal; Dr. Martha Jacob EngenderHealth; Ms. Anita Gibson, JHPIEGO; Ms. Pancha Kumari Manandhar, USAID/Nepal; Dr. Jim Shelton, USAID/Washington D.C.; Mr. Frank R. White, Jr., Logistic Specialist, Johns Snow Inc. (JSI); and Dr. Shyam Thapa, Family Health International (FHI). Also members of the topic work groups gave valuable input: Dr. Ganesh D. Bhatta, FPAN; Dr. Anuja Bista, CFWC; Dr. Muhiddin Haidder, formerly of Johns Hopkins University/Population Communication Services (JHU/PCS); Ms. Sabitri Joshi, Quality of Care Management Centre (QOCMC); Ms. Sangita Khatri, QOCMC; Dr. Vijaya Manandhar, World Health Organization (WHO); Ms. Anne Peniston, USAID; Ms. Krishna Prajapati, Tribhuban University Teaching Hospital (TUTH); Dr. Pradeep Pyakurel, UNFPA; Ms. Bidya Shrestha, CFWC; Ms. Bishnu Shrestha, CFWC; and Dr. Mahendra P.D. Shrestha, NFCC. I am also grateful for their contributions.

I would like to thank USAID/Nepal for the financial assistance to publish this volume of the *National Medical Standard.* Similarly, appreciation is due to the staff of JHPIEGO especially Ms. Shobha Shah, Ms. Pranita Rai and Ms. Sandhya Limbu, for their hard work on computer processing to complete the manual.

I am also thankful to numerous people including service providers and supervisors working at the field level and participants of the retreat meeting.

This document would not have come to publication without the technical expertise, hard work and commitment of the editorial/writing team who had the responsibility of seeing this document through to completion: Dr. James A. Litch, JHPIEGO; Mr. Dirgha Raj Shrestha, Engender Health and Ms. Lynn Poole, Engender Health.

I believe that the contents provided in this publication, which is based on international reference materials and programmatic experiences of Nepal, will be pivotal to all health professional and program managers seeking to expand and improve the quality of family planning care through different delivery points in Nepal.

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Director
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ACKNOWLEDGEMENTS
(First Edition)

The Nepal Fertility Care Center (NFCC) acknowledges the contribution, help, assistance, advice and comments of many individuals, experts and organizations in the preparation of "National Medical Standards for Reproductive Health".

On behalf of Ministry of Health, Family Health Division; NFCC wishes to thank the Task-Force Committee Members for preparing the first draft document during retreat meeting; The participants and resource persons of document review workshop for finalizing the draft; The expatriate resource persons and USAID/Nepal, AVSC New York and Dhaka and JSI/Nepal.

Many valuable suggestions were received form Dr. Kalyan R. Pandey, Director General, Department of Health; Dr. Hira Shrestha, Director, Family Health Division; Dr. Paul Mackenzie, JSI Nepal; and Dr. Philip Darney and Neol McIntosh, JHPIEGO Corporation, U.S.A.

The completed draft of the Standard was used as the main reference document in a Contraceptive Technology Update (CTU) workshop held on 15-21 January 1995 in Kathmandu Nepal.

The workshop was jointly organized by the Nepal Society of Obstetricians and Gynecologists (NESOG), the Nepal Medical Association, Tribhuvan University, Institute of Medicine, and the Ministry of Health with technical assistance from FHI and JHPIEGO Corporation.

The final version was prepared by a small group of experts as assigned by the workshop. Sr. Kalyan R. Pandey, Dr. Paul Mackenzie, Dr. Tikaman Vaidya and Mr. Dirgha R. Shrestha, NFCC formed the group.

NFCC is very grateful to USAID/Nepal, AVSC/New York for the financial assistance and advice and JSI Nepal and JHPIEGO Corporation for technical support for publishing this document.

NFCC would like to thank its staff and especially Dr. M.P. Shrestha, Mr. Binod Khambu, Mr. Binod Khambu, Hari Shrestha and Ms. Pawitra Gurung for providing secretarial, logistical and computer services.

We are thankful to numerous people and organizations who have contributed directly or indirectly for the publication including the printing press.

July 1995 (2052 B.S.)

Dr. Tikaman Vaidhya
Executive President
and
Member-Secretary
of the Task Force

LIST OF ABBREVIATIONS

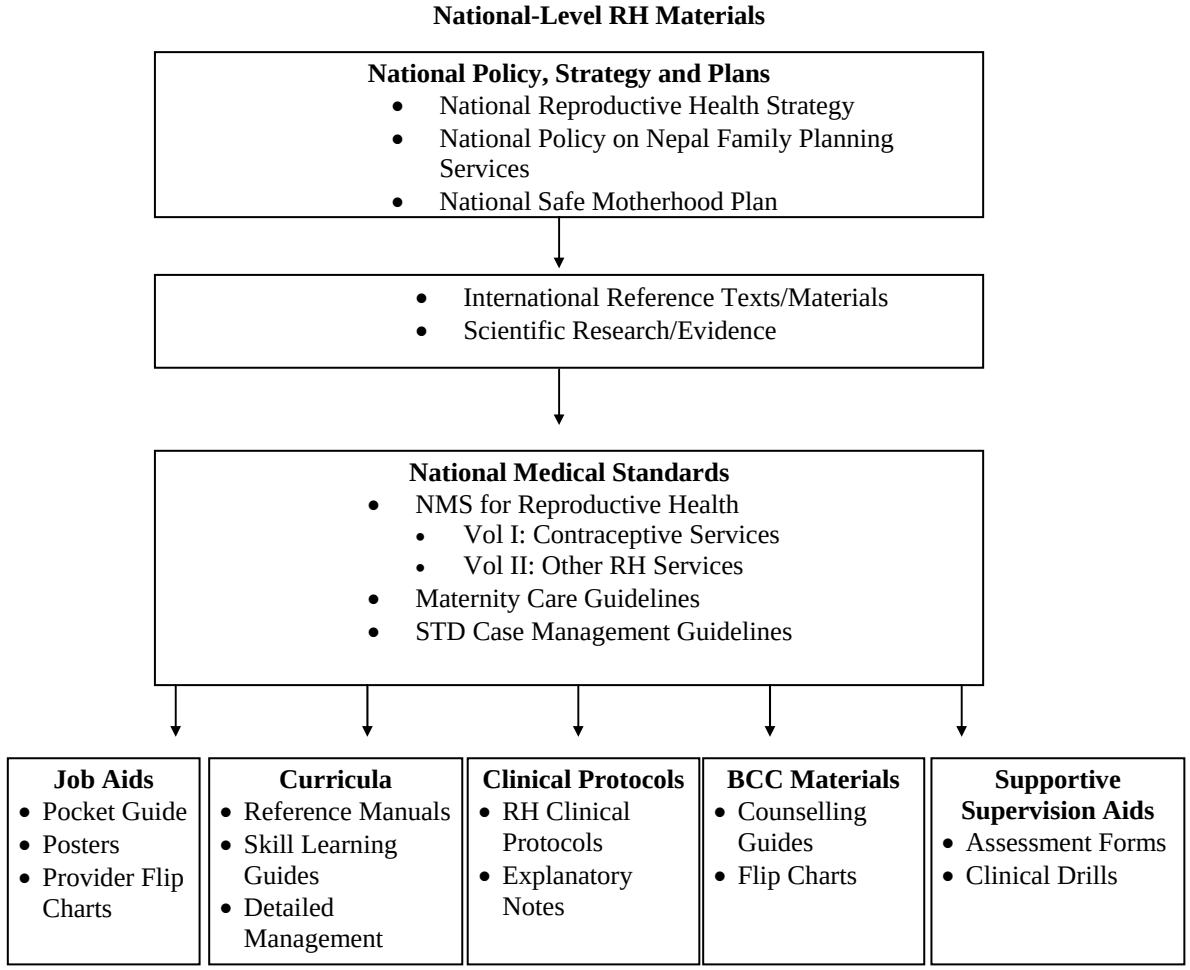
AIDS	Acquired Immunodeficiency Syndrome
AHW	Auxiliary Health Worker
ANM	Auxiliary Nurse Midwife
BP	Blood Pressure
CFWC	Chetrapati Family Welfare Centre
CMA	Community Medical Assistant
CPR	Contraceptive Prevalence Rate
CYP	Couple Years Protection
COC	Combined Oral Contraception
COFP	Comprehensive Family Planning
DHO	District Health Office
DMPA	Depo-medroxyprogesterone acetate
DPHO	District Public Health Office
DVT	Deep Vein Thrombosis
EE	Ethinyl Estradiol
FCHV	Female Community Health Volunteer
FHD	Family Health Division
FHI	Family Health International
FPA	Family Planning Assistant
FPAN	Family Planning Association of Nepal
HA	Health Assistant
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HLD	High-Level Disinfectant
HIV	Human Immunodeficiency Virus
HMG/N	His Majesty's Government of Nepal
HMIS	Health Management Information Service
IPPF	International Planned Parenthood Federation
IUD	Intrauterine Device
IV	Intravenous
JHPIEGO	an affiliate of Johns Hopkins University, is a nonprofit corporation working to improve the health of women and families throughout the world
JSI	John Snow Incorporated
LAM	Lactational Amenorrhoea Method
LMP	Last Menstrual Period
MCHW	Maternal Child Health Worker
MO	Medical Officer
MOH	Ministry of Health
NFCC	National Fertility Care Centre
NFP	Natural Family Planning
NGO	Nongovernmental Organization
NHTC	National Health Training Centre
NMS-RH	National Medical Standard for Reproductive Health
NSV	No-Scalpel Vasectomy
PID	Pelvic Inflammatory Disease
OC	Oral Contraception
PIC	Progestin Injectable Contraceptive
POC	Progestin Only Contraceptive
POP	Progestin Only Pills

QOCMC	Quality of Care Management Centre
RH	Reproductive Health
SBE	Subacute Bacterial Endocarditis
SN	Staff Nurse
STIs	Sexually Transmitted Infections
TBAs	Traditional Birth Attendants
TUTH	Tribhuban University Teaching Hospital
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
VHW	Village Health Worker
VSC	Voluntary Surgical Contraception
WHO	World Health Organization

INTRODUCTION

The *National Medical Standard for Reproductive Health* is designed to provide policymakers, district health officers, hospital directors, clinical supervisors and service providers with accessible, clinically oriented information to guide the provision of reproductive health services in Nepal. This *Volume I* contains standards for contraceptive services. *Volume II* includes the remaining reproductive health issues as outlined in the International Conference on Population and Development in Cairo, and adopted by the Nepal Ministry of Health.

The *National Medical Standard for Reproductive Health* reflects the national health policy as outlined in the *National Reproductive Health Strategy*, and rely on international reference materials and scientific evidence. The standards serve as a country-specific reference document for essential clinical materials and tools that support patient care and service provision.



The information in the *NMS-RH Volume I* states the medical criteria for use of contraceptive methods, and sets a national standard for the provision of these services. The document is divided into three sections to aid the reader when accessing information. Chapters in Section I address the national standards for counselling, client assessment, infection prevention, and medical supervision and monitoring, and family planning complication management systems for provision of family planning services in Nepal. In Section II, national standards for specific contraceptive methods available in Nepal are presented by chapter, each organized to

include background (mechanism of action, effectiveness), counselling and informed consent, indications/precautions, client assessment, method provision, client instructions/follow-up, side effects, and requirements for facilities and providers. Section III of these standards take sinto account clients with special needs, such as a woman with a specific medical problem (e.g., anaemia or postabortion complications), or a woman in a particular age group. The Appendices includes specific forms, lists of essential instruments and facility criteria required in Nepal.

When possible, the *NMS* refers readers and clinicians to specific HMG/N clinical guidelines and protocols (such as the *Reproductive Health Clinical Protocols*, the *National STD Case Management Guidelines* and the NHTC method-specific training materials) that provide more information to guide practicing clinicians.

The information in the *NMS* is based on the latest material available and expert advice from Nepali and U.S. reproductive health experts. Important reference documents for this volume include: JHPIEGO's *PocketGuide for Family Planning Service Providers, 2nd edition* (JHPIEGO)*; Medical and Service Delivery Guidelines for Family Planning, 2nd edition* (WHO and AVSC); *Recommendations for Updating Selected Practices in Contraceptive Use, Volume I* (USAID); and *Improving Access to Quality Care in Family Planning: Medical Eligibility Criteria for Contraceptive Use, 2nd edition* (WHO).

CHAPTER ONE

COUNSELLING AND INFORMED CHOICE

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COUNSELLING and INFORMED CHOICE

1.1 DEFINITIONS OF INFORMED CHOICE AND COUNSELLING

Informed choice is the process that a client passes through to make a voluntary, **well-considered decision** about his/her reproductive health (RH) needs. The client arrives at this decision based on accurate information in an environment of full information about available methods and resources.

Family planning counselling is the **process of two-way communication** by which the counsellor assists the client to make a decision about fertility and contraceptive options. The counsellor provides accurate and complete information, addressing the client's particular reproductive health needs, concerns and goals.

Strategies to support informed choice

Following are the staff behaviours that promote informed choice:

- Provide information on a variety of methods
- Conduct in a private, comfortable setting that fosters trust
- Focus on client's needs
- Adhere to client's rights and social equality
- Exhibit respect and mutual understanding

Principles of family planning counselling

Effective family planning counselling is based on the following principles:

- **Client's Needs**: Individuals have their own norms, values, beliefs, culture and attitudes—all which influence decisions. Counselling is conducted in a respectful way using a communication process that seeks to understand the client's needs and personal circumstances.

- **Voluntary Choice**: Decisions are based on complete and accurate information and must be made **free of pressure, intimidation, enticements, coercion or incentives.** Making a voluntary choice correlates with client compliance and satisfaction with the contraceptive method.

- **Empowerment**: Enables client to recognize and exercise individual rights. Counselling is conducted in a nonjudgmental, unbiased manner, without discrimination, according to economic, ethnic, educational, gender, age or marital differences.

- **Confidentiality**: The content of a counselling session must never be discussed by the counsellor or staff with outside staff or visitors, without the client's consent.

The session is conducted in a private space where outsiders cannot overhear/view the interactions.

- **Consent**: Verbal acknowledgement of client understanding about the method choice is required before providing the family planning method. With all voluntary surgical contraception (VSC) procedures, **a written, signed consent is required and mandatory**.

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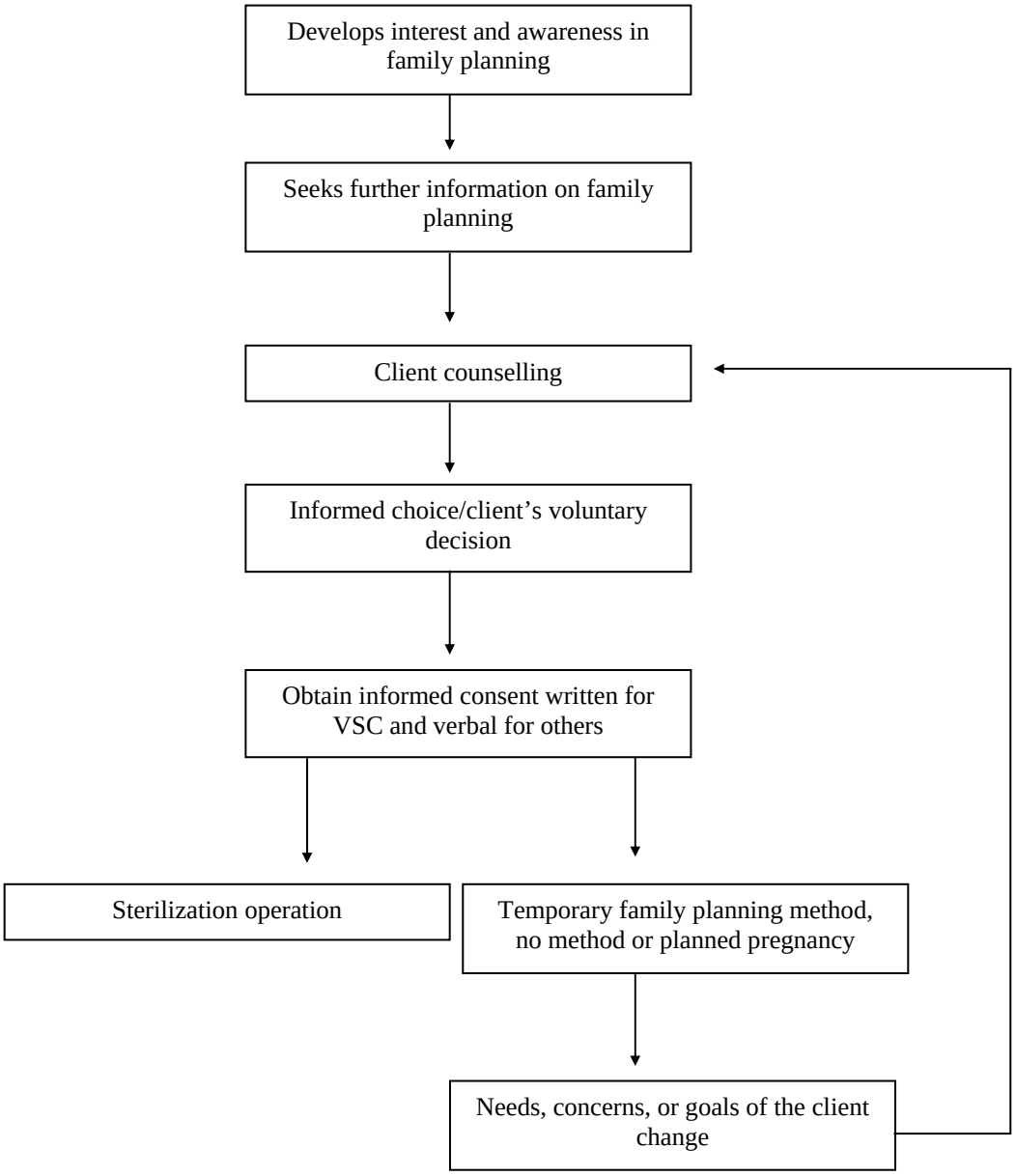
1.2 COUNSELLING AND INFORMED CHOICE ALGORITHM



1.3 INFORMED CONSENT

Informed consent is the client's voluntary decision to undergo a family planning procedure, in full possession and understanding of the relevant facts. In Nepal, informed consents are taken verbally for temporary methods, and permanent methods

require an additional written consent. The consent form is a legal authorization for the procedure to be performed.

The consent form (see Appendix D I) becomes a legal document when signed/marked by the client. **A consent is valid and binding only if the client was fully informed and knowledgeable about the content of the consent before signing.**

- If a client is unable to read the consent, staff must read or explain in detail the contents of the document in a language understood by the client, and in the presence of a witness (preferably of the same sex as the client). The witness must also sign the consent to verify the client understands the content, and also verifies the client's mark/thumbprint.
- Since VSC procedures are permanent, in the case of a married couple, it is **advisable, but not required**, to obtain a jointly signed consent and if possible to include the client and spouse in the counselling session.
- The person executing the consent also must sign the document.
- The physician is the person ultimately responsible for assuring that the informed consent is obtained with proper client understanding. Thus the physician's role is to oversee that the family planning staff ensure that the client has signed the informed consent form with full understanding.

Spouse's written consent for VSC is advisable, BUT NOT REQUIRED.

Below are the seven elements of VSC services that the client must fully understand to obtain an informed consent:

- Temporary contraceptive methods are available.
- Voluntary sterilization is a surgical procedure.
- Risks as well as benefits are associated with the procedure, both of which must be explained.
- The procedure is permanent.
- Successful procedures result in the inability to bear any more children.
- There is a small possibility of method failure.
- The client can decide against the operation at any time (without losing the right to other medical, health, or other services or benefits).

Special Considerations—Mobile and Seasonal VSC Sites

In mobile and seasonal VSC sites, clients frequently arrive at the site already having made a decision for the VSC procedure. At these sites where there are large numbers of clients and time constraints, family planning information can be given to clients together in small groups. After completion of the group session the provider/registrar meets with each client privately to verify that the client's decision is based on accurate and complete understanding of the seven points in the informed consent form. If the client has insufficient knowledge and understanding, then the counsellor/screening nurse must conduct a thorough and private counselling session.

The counselling process

Family planning staff must be properly informed about available contraceptive methods and be able to assist potential users to make an informed choice. Information should be given to aid a client's choice, **not to persuade, press or induce a person to use a particular method**. Staff dealing with family planning clients must be trained in counselling techniques and have the appropriate materials and job aids to conduct the counselling session.

Family planning counselling is to be provided wherever family planning methods are available. The counselling session may be an individual session (client and service provider) or a couple counselling session, (client with partner and service provider). Per the client's request and desire, a close friend or family member may be present in the counselling session

Staff who have completed a certified counselling training or are certified in providing family planning contraceptive services may conduct counselling sessions.

For further information on the counselling process, refer to *The* Comprehensive Family Planning (*COFP)/Counselling Reference Manual***,** published by the Nepal Ministry of Health (MOH) National Health Training Centre (NHTC), 1999.

Client-provider interactions

Verbal interactions and sharing of information between the provider and client during each step of a family planning procedure help alleviate client fears and concerns. When a client feels safe and is confident in the provider's skills, the client will be more cooperative. Educating the client about potential side effects and relieving concerns correlate positively with long-term use of temporary family planning methods. Following are the behaviours to be modelled by staff when interacting with clients:

- Treat client with respect, exhibiting friendly, calm behaviour and an unrushed manner.
- Treat all clients as equals, without preferential treatment by age, gender, religion, values, caste, economic status or marital status.

- Speak in a language understood by the client or arrange for a translator to help with communication.
- Assure confidentiality concerning the client's information.
- Describe how the client can be helpful during the procedure and what to expect before, during and after the procedure.
- Provide the client an opportunity to ask questions and address concerns.
- Assure that client's modesty is maintained.
- Address doubts, fears or misconceptions held by the client.
- Minimize the client's pain and address the client's anxiety.

When staff members take the time to treat clients in a gentle, considerate manner, giving them full information, the counselling process will go smoothly for the staff and clients alike.

Situation-specific counselling

VSC clients

Since permanent methods are irreversible, require bodily exposure and are surgical in nature, the following must be addressed:

- In-depth counselling and written informed consent are required.
- Assume that all clients have fears and anxiety and address these concerns in a clear and helpful manner. **Female VSC clients in particular have high levels of fear and anxiety around the procedure.**
- Fully explain each part of the process including screening, pre-operative medications, gowning, operating theatre, post-operative pain, side effects, warning signs, recovery at home and follow-up.
- Maintain the client's dignity and modesty during each stage of the procedure—in counselling, screening, urinating, clipping, changing, waiting, wearing gowns, in operating theatre during procedure and re-dressing.

Postpartum clients

- The service provider must ascertain that the client is not limited by physical or emotional factors (sedation, labour, severe pain, trauma) that would compromise the client's ability to make a clear decision
- The following should be explained: effectiveness of the Lactational Amenorrhoea Method (LAM) methods effectiveness to be explained, return of fertility before menses and family planning methods that do not adversely affect breastfeeding.

Postabortion care clients

- Acceptance of contraception must not be a prerequisite for postabortion care services or treatment of complications.

- Family planning counselling can occur at anytime, before or after the procedure or treatment.
- The service provider must ascertain that the client is not limited by physical or emotional factors (sedation, severe pain and trauma) that would compromise the client's ability to make a clear decision. In this case, the client and/or partner should be given condoms, instructions for use, and referral and follow-up information.
- Counselling should include information on the rapid return of fertility (after 2 weeks) and potential for pregnancy before menses resume.
- If pregnancy was due to contraceptive failure, counselling must include effectiveness of methods.

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1.4 MALE CLIENTS

- As with female clients, male counselling should include information on reproduction, sexuality and contraception, and use of flipcharts and anatomic models. Misconceptions about methods should be clarified.
- Condoms should be demonstrated using anatomic model, not just verbally explained or handed out. Instructions for condom use should be readily made available in clinics.
- Couple counselling should be encouraged.

1.4.1 Adolescents

- Nonjudgmental, unbiased counselling is essential to establish rapport, comfort and trust.
- Confidentiality must be assured and protected.
- Complete information should be available in sexuality and reproductive health, with an emphasis on adolescent issues: self-esteem, physical appearance, negotiating unwanted sexual advances and pressure from peers or partners, and handling relationships.
- Make condoms and instructions about use of condoms available to the adolescent in a private setting, free of embarrassment.

CHAPTER TWO

CLIENT ASSESSMENT

CHAPTER TWO

CLIENT ASSESSMENT

2.1 AIM

The **primary objectives** of assessing clients prior to providing a contraceptive method are to determine with reasonable certainty:

- That the client is not pregnant;
- That the client is eligible for the chosen method; and
- Whether the client has any medical problems (e.g., diabetes or high blood pressure) that may require more frequent follow-up or management.

For most clients, this can be accomplished by asking a few key questions. To enable clients to obtain the best contraceptive method of their choice, client assessment should be limited **only** to those procedures that are essential and mandatory for all clients in **all** settings. (Refer to **Table 2-1, Client Screening Checklist,** to assess clients considering reversible methods).

2.2 CLINICAL ASSESSMENT

Refer to *Reproductive Health Clinical Protocols* for client assessment.

2.3 INDICATIONS AND PRECAUTIONS FOR PARTICULAR METHODS

In this *National Medical Standard*, **contraindications** are listed for any condition or disease that makes the use of a contraceptive strongly inadvisable or unsafe for a client. **Precautions** are listed for conditions that require extra attention and closer follow-up.

> Keep in mind that in Nepal the high maternal mortality rate and the high risks are associated with pregnancies that are too close, too many and unwanted. Therefore, precautions should not be taken as contraindications, and if a person is eligible with precautions for a certain family planning method, every effort should be made to provide it along with whatever extra care is indicated.

2.3.1 Client Screening Checklist for Reversible Methods

If all responses in the list below are negative (No) and pregnancy is not suspected, the client may go directly for method-specific counselling and provision of or referral for the contraceptive. Any positive response (Yes), however, means that the client should be further evaluated before making a final decision.

Note: Clients do not always have exact information about the conditions listed below. As a consequence, healthcare workers must know how to assess the accuracy of the information. If necessary, they may need to restate the question(s) in several different

ways. They need to take into account any social, cultural or religious factors that might influence how the woman (or her spouse) responds.

Table 2-1: Client Screening Checklist for Hormonal Methods

History	Yes	No
Possibly pregnant		
Breastfeeding and less than 6 weeks postpartum[1]		
Unexplained vaginal bleeding		
Diabetes[4]		
Abnormal yellow skin or eyes (jaundice)		
Smoker over age 35[2]		
Severe headaches		
Severe pain in calves or thighs with swollen legs (oedema) or history of deep vein thrombosis (DVT)[2]		
Blood pressure above 160 mm (systolic) or 100 mm (diastolic)		
Diagnosis or history of breast cancer		
Taking rifampin or anti-epilepsy (seizure) medications or griseofulvin[3]		
History of stroke or cardiovascular accidents		

1 Combined oral contraceptives (OCs) are the method of last choice anytime for breastfeeding women, especially in the first 6 weeks.
2 DVT: Does not apply to Depo-Provera® and Norplant®
3 Does not apply to Depo-Provera® and Norplant®
4 With vascular disease or > 20 years, category ¾ for combined oral contraceptives (COCs) + 3 for DMPA

Table 2-2: Client Screening Checklist for Intrauterine Device (IUD)

IUDs	Yes	No
Possibly pregnant		
Client (or partner) has other sex partners		
History of sexually transmitted diseases (STIs) within 3 months		
History of pelvic infection (PID) within 3 months		
Unexplained vaginal bleeding		
After 48 hours to 4 weeks postpartum		
Post septic abortion or puerperal sepsis		

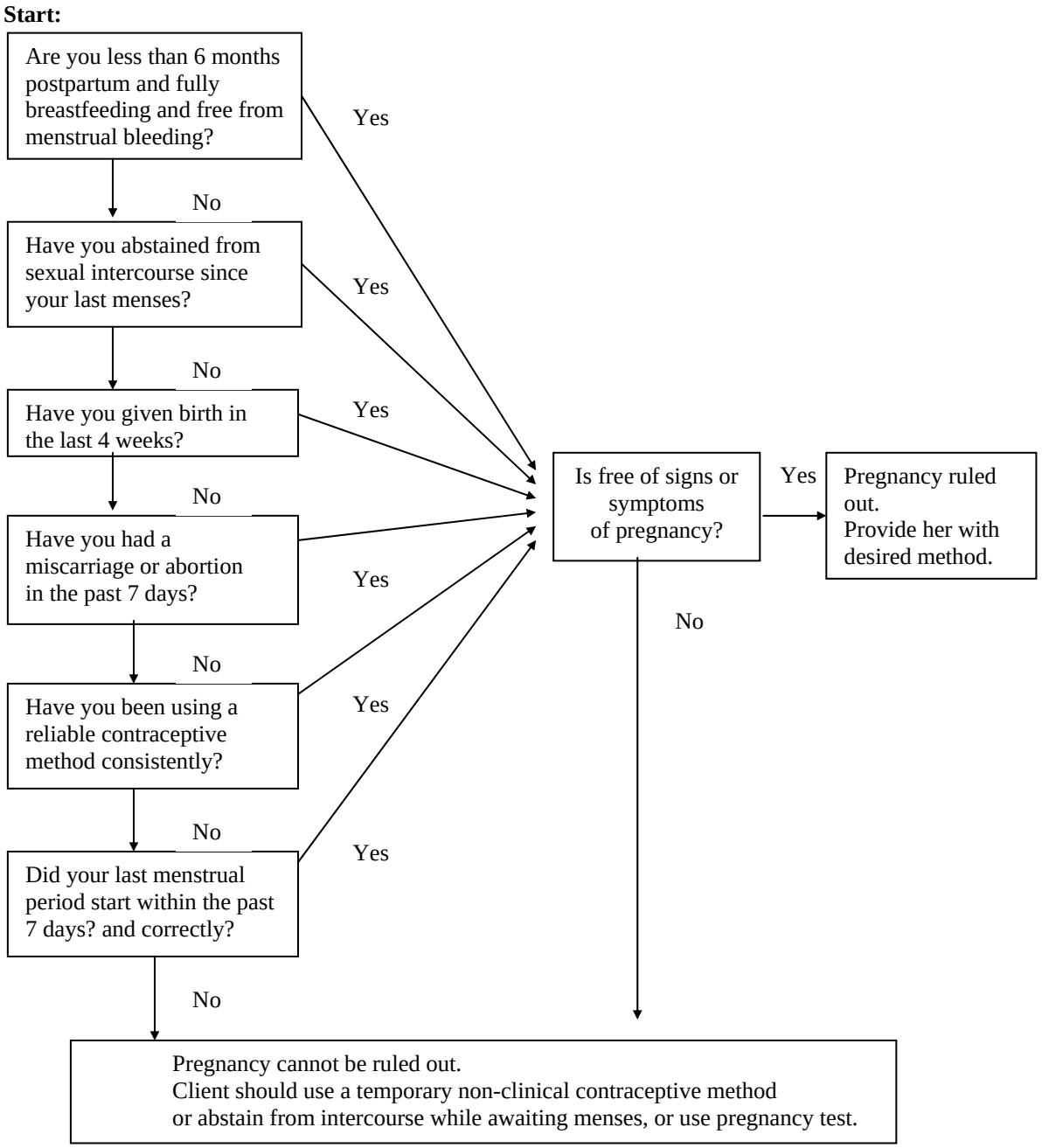
2.3.2 How to be Reasonably Sure That the Client is NOT Pregnant

All female clients should be screened for pregnancy before provision of any family planning method. If a woman who is unknowingly pregnant is given a family planning method, it is likely that people in her family and community will believe that the method she used is not effective, and false rumours will spread about that method.

You can be reasonably sure the client is not pregnant if she has no symptoms of pregnancy (breast tenderness, nausea and or amenorrhoea) and:

- Has not had intercourse since last menses; or
- Has been correctly and consistently using another reliable method; or
- Is within the first 7 days after the start of her menses (days 1–7); or
- Is within 4 weeks postpartum (for non-breastfeeding women); or
- Is within the first 7 days postabortion; or
- Is less than 6 months postpartum, is fully breastfeeding and has had no menses since delivery.

Figure 2-1: Flowchart to Rule Out Pregnancy for Non-Menstruating Family Planning Clients



Physical exam is seldom necessary, except to rule out pregnancy of greater than 6–8 weeks gestation (measured from the last menstrual period).
Pregnancy testing is unnecessary except in cases where:

- It is difficult to confirm pregnancy (i.e., 6 weeks or less from the last menstrual period (LMP)); or
- The results of the pelvic examination are equivocal (e.g., the client is overweight, making sizing the uterus difficult).

In these situations, a sensitive urine pregnancy test (i.e., detects less than 50 mIU/ml of HCG) may be helpful, if readily available and affordable. If pregnancy testing is not available, counsel the client to use a temporary non-clinical contraceptive method or abstain from intercourse until her menses occurs or pregnancy is confirmed.

2.4 CLIENT ASSESSMENT REQUIREMENTS

The following table indicates the client assessment requirements for each type of family planning method:

Table 2-3: Client Assessment Requirements for Family Planning Methods

Procedure	LAM/ Breast feeding	Barrier Methods (Condom/ Spermicide)	Hormonal Methods (COCs/ Depo-Provera®/ Norplant®)	IUD	Sterilization Female/Male
Screen for Pregnancy	No	No	Yes	Yes	Yes
STIs Screening (High Risk)	No	No	No	Yes	Yes
Medical and Reproductive History	Yes	No	Yes	Yes	Yes
Physical Exam					
Female General Blood Pressure (BP)	No	No	Yes	No	Yes
Abdominal	No	No	No	Yes	Yes
Pelvic Exam (Bimanual and speculum)	No	No	No	Yes	Yes
Male Exam (groin and genitals)	N/A	No	N/A	N/A	Yes
Laboratory Test (Female only)					
Haemoglobin	No	No	No	No	Yes[1]
Protein and Sugar in Urine	No	No	No	No	Yes

[1] In Nepal the risk of dying from a pregnancy-related complication is much greater than the risk of dying from complication of the minilaparotomy procedure. A large number of Nepalese women suffer from anaemia and to refuse them VSC services solely on the criteria of borderline anaemia could defeat the very purpose of providing them quality reproductive health services. A physician's decision to conduct minilaparotomy on a severely anaemic client (Hb < 7 gm/dl or Hct < 20) should be based on her risk of pregnancy-related complication and her access to services, versus the risk of operating on an anaemic client.

CHAPTER THREE

INFECTION PREVENTION

CHAPTER THREE

INFECTION PREVENTION

3.1 AIM

To minimize the transmission of infections to clients and service providers, including clinic helpers who handle contaminated instruments and wastes.

3.2 PROTECTIVE BARRIERS

Protective barriers are physical, mechanical or chemical processes which help prevent the spread of infectious microorganisms from client to client, clinic staff to client, or vice versa.

Protective barriers include:

- Handwashing
- Wearing gloves and surgical attire
- Using antiseptic solutions
- Processing equipment, instrument and other items
- Managing clinical waste

3.2.1.

Handwashing

Handwashing may be the single most important procedure in preventing infection. To encourage hand washing, program managers should make every effort to provide a continuous supply of fresh water, either from the tap or a bucket, and soap.

Indications

- Before and after examining a client especially when touching mucous membranes
- Before putting on sterile or high-level disinfected (HLD) gloves
- After removing gloves, as they may have invisible holes or tears
- After handling contaminated objects, such as used (soiled) instruments
- When accidentally touching blood or other body fluids (e.g., when collecting laboratory specimens).

Items required

- Soap
- Clean running water
- Basin to collect water

- Clean, dry towel

Please remember

- Microorganisms grow and multiply in moisture and in standing water. Therefore, avoid basins containing standing water, even with the addition of an antiseptic agent such as Dettol® or Savlon®, because microorganisms may survive and multiply in these solutions.

- When it is difficult to wash hands frequently, use an alcohol handrub. The solution can be prepared by adding 2 ml of either glycerine, propylene glycol or sorbitol to 100 ml of 60% – 90% alcohol. Use 3–5 ml of this solution for each application and continue rubbing the solution over the hands for about 2 minutes, using a total of 6–10 ml per scrub.

Technique

For non-surgical procedure (e.g., examination of a client, pelvic examination insertion/removal of IUD):

- Wash hands with plain soap for about 15–30 seconds; then rinse in a stream of water. Dry hands with a clean towel or air dry.

For surgical procedures (e.g., laparoscopy, minilaparotomy, vasectomy, insertion and removal of Norplant implants):

- Remove all items of jewellery, including wristwatch.
- Wash hands with an antiseptic soap for 3 to 5 minutes.
- Scrub hands with a soft brush or sponge. Begin at the fingertips; wash between all fingers and move toward the elbow.
- Repeat for the second hand.
- Rinse each arm separately, fingertips first, holding hands above the level of the elbows to prevent water from running down from the elbow to the hands.
- Dry hands with a sterile towel.
- After handwashing has been completed, hold hands above the level of the waist.

Repeat handwashing if hands touch any unsterile object before gloves are put on. However, if this happens while wearing gloves, just change gloves.

It is the best practice for providers to wash their hands between each client contact. However, in high volume settings (high volume is defined as five or more clients waiting for family planning procedures), this may be impossible. In such situations the following are the minimum standards:

Minimum hand washing requirement for VSC and other family planning services:

Routine Setting	High Volume Setting	
	Minilaporatomy, Vasectomy, Norplant and IUD	Laparoscopy and injectables
After every case	Every hour Or After every 5 cases	Every hour Or After every 10 cases

Gloves **must** be changed between cases no matter which of the above procedures is followed.

3.2.2 Wearing Gloves

Gloves should be worn by all staff prior to contact with blood and body fluids, either when serving a client or when handling contaminated equipment and materials. Change gloves between each client to avoid cross contamination. Using new, single-use (disposable) gloves is preferable. However, re-usable gloves can be washed and sterilized by autoclaving, or washed and high-level disinfected by boiling before reuse.

Indication

Types of gloves	Indications
Sterile gloves	While performing surgical procedure such as minilaparotomy, vasectomy, insertion and removal of Norplant etc.
High-level disinfected gloves (single use or reusable)	When sterile gloves are not available for surgical procedure.
Clean non-sterile gloves	IUD insertion and removal (When no-touch technique is used) Pelvic examination
Utility gloves	While handling used instruments, cleaning blood or bloody fluids and handling waste.

Do not use gloves which are cracked, peeling or have detectable holes or tears.

Using other surgical attire

Other surgical attire such as caps, masks and gowns help reduce the risk of post-procedure infections in clients.

Surgical attire required for family planning procedures

Family Planning Procedure	Gloves	Cap/Mask	Gowns
IUD	Yes	No	No
Norplant implants and removal	Yes	No	No
NSV	Yes	Yes	No
Minilaparotomy	Yes	Yes	Yes
Laproscopy	Yes	Yes	Yes

3.2.3 Antisepsis

Antisepsis involves cleaning of the client's skin or mucous membrane with an antiseptic substance to remove or eliminate as many microorganisms as possible, prior to any invasive procedure. Care should be taken not to irritate or damage skin or mucous membrane.

Indications to use antiseptics

- Surgical handscrub
- Skin, cervical and vaginal preparation before a clinical procedure
- Handwashing in high-risk situations, such as before invasive procedures (e.g., insertions of central venous catheters or tubes) or before contact with clients at high risk of infections (e.g., newborns or immunosuppressed clients)

Note: While preparing skin for surgical procedure, do not shave hair at the operative site. Shaving increases the risk of infection as the tiny nicks in the skin provide an ideal setting for microorganisms to grow and multiply. If the hair must be cut, trim the hair close to the skin surface immediately before surgery.

Selection of antiseptics

The following antiseptic solutions are approved for use:

- Idophors, various concentrations 0.5% to 10% (e.g., Betadine)
- Alcohols (60 to 90%), ethyl, isopropyl, "methylated spirits"
- Chlorhexidine gluconate 4% (e.g. Hibitane, Hibiscrub) Centrimide and chlorohexidine gluconate (CHG), various concentrations (e.g., Savlon)
- Iodines (2 to 3%), tincture and aqueous (e.g., Lugol's) (not for use on mucous membranes such as vagina)

Remember: antiseptics do not have the same killing power as the chemicals used for HLD. Therefore, antiseptic solutions should never be used to:

- Disinfect inanimate objects, such as instruments and reusable gloves
- Clean surfaces, such as floors or countertops

Instruments and items such as pickups (lifters, cheatle forceps), scissors, scalpel blades, and suture needles should never be left soaking in an antiseptic solution; they should always be stored dry. Microorganisms can live and multiply in antiseptic solutions and contaminate the instruments and other items, leading to infections.

Storage and dispensing of antiseptics

Contamination of every antiseptic has been documented. Microorganisms contaminating antiseptic solutions include gram-negative bacilli and endospores and, rarely, staphylococcus. These organisms can cause subsequent infection when used for handwashing or on a client's skin or mucous membrane.

To prevent contamination of antiseptic solutions

- **Pour the antiseptic,** unless supplied commercially in small quantities, into small, clean, reusable containers for daily use. This prevents evaporation and contamination, which could occur if the large container is opened too often. Do not store gauze or cotton wool in aqueous antiseptics as this promotes contamination.
- **Establish a routine schedule** (e.g., each week) for preparing new solutions and cleaning reusable containers. (Solutions are at increased risk of becoming contaminated after one week's storage of being prepared.)
- Wash the reusable container thoroughly with soap and water, boil and dry before refilling**.** Label it with the date each time it is washed, dried and refilled.
- **Store** antiseptics in a cool, dark area. Never store chemicals in direct sunlight or in excessive heat (e.g., upper shelves in a tin-roofed building).
- When using antiseptic solutions, always pour the solution out of the container. Touching the rim or contents of the container with gauze, a cotton swab or hand contaminates the entire bottle of antiseptic**.**

3.2.4 Processing of Equipment and Other Items

The purpose of processing of instrument is to reduce the spread of microorganisms by equipment, instrument and other items while reusing these materials for providing services. It is not only for clients/patients but also for service providers and clinic support staff.

Steps in processing equipment and other items

1. Decontamination
2. Cleaning
3. HLD or sterilization
4. Storage

3.2.4.1 Decontamination

Decontamination is important for pre-treating instruments and objects that may have come in contact with body fluids, to make them safer to handle by personnel who clean them. Proper decontamination will inactivate Human Immunodeficiency Virus (HIV) and hepatitis B virus (HBV), hepatitis C virus (HCV) and hepatitis D, making instruments safer for staff to handle. Using 0.5% chlorine solution (virex) is an inexpensive and effective way to do decontamination.

Items required

- Plastic bucket
- Utility gloves
- Chlorine powder or liquid bleach
- Plastic jug to measure water

Preparation of 0.5% chlorine solution

Chlorine solution can be made from liquid household bleach (sodium hypochlorite) or from other chlorine compounds available in powder (calcium hypochlorite or chlorinated lime) or tablet form (sodium dichloroisocyanate).

Process of decontamination

- Keep a fresh plastic bucket containing 0.5% chlorine solution near the procedure site.
- Immediately after each procedure, place the used items in 0.5% chlorine solution for 10 minutes. Do not wait too long before starting decontamination, to prevent organic materials from drying and becoming hard to remove.
- After 10 minutes, rinse with water and remove gross organic material before being cleaned. Soaking instruments for excessive periods of time in the chlorine solution damages them.
- Decontaminate large surfaces (e.g., pelvic examination tabletop) by wiping them with 0.5% chlorine solution.

Precautions

- Use only plastic containers for chlorine solution. Chlorine damages metal containers.
- Use utility gloves while working with chlorine solution.
- Submerge all the instruments in 0.5% chlorine solution so that the chlorine solution level is above the instruments. Open jointed items such as clamps and scissors.
- To prevent damage to the instruments do not keep them in chlorine solution for more than 10 minutes.
- Chlorine solutions should be replaced daily or more often if necessary, because they lose potency rapidly over time or after exposure to light.

- Rinse the instruments with cold water immediately after decontamination.
- Store the chlorine powder where there is good ventilation. Do not keep it in a general storage area where there are other metal instruments and equipment.

3.2.4.2 Cleaning

Cleaning is a crucial step in instrument processing. Cleaning greatly reduces the number of organisms and endospores on instruments and other equipment.

Items required

- Soap or detergent (a disinfectant is not needed)
- Clean water (warm water if available)
- Brush (fine bristled), such as a toothbrush
- Utility gloves and other protective attire

Process

- Hold items under soapy water (warm, if available) and vigorously scrub with a brush to completely remove all blood, tissue and other residue. Use a liquid or powdered detergent, which can easily dissolve in water. Avoid the use of soap or detergents that contain soap, because fatty acids contained in soap react with the minerals in hard water and form residue, which is difficult to remove. Do not use abrasives (e.g., Vim or Comet) because they may damage instruments.
- Be sure to remove all materials caught in the small spaces (e.g., between the teeth of clamps or hemostat) and around the joints.
- Rinse thoroughly with water, as soap may interfere with chemical disinfection or sterilization.
- Dry by air or with a clean towel. (Water from wet instruments will dilute chemicals used for sterilization or disinfection.) Drying is not necessary for instruments which are to be boiled.

3.2.4.3 High-Level Disinfection

High-level disinfection is effective in destroying all microorganisms but does not always kill endospores. High-level disinfection is appropriate for items that do not come into contact with the bloodstream or tissues under the skin. Also, when sterilization is not possible, high-level disinfection is the only acceptable alternative for processing instruments and other items for reuse.

HLD can be achieved by two techniques: boiling and chemical disinfection.

Boiling

Items required

- Pot with a lid

- Fuel source: Either electric stove or Kerosene stove

Process

- Decontaminate, clean and rinse items thoroughly. Completely immerse items in water. Open jointed instrument such as clamps and scissors. Disassemble items composed of more than one part. Make sure that any bowls and containers to be disinfected are full of water.
- Cover and bring water to a rolling boil. Boil items for 20 minutes. Begin timing after water reaches a rolling boil. Do not add or remove any item once timing begins.
- Lower heat to keep water at a rolling boil because too vigorous boiling wastes fuel, evaporates the water and may damage equipment.
- After 20 minutes, remove items from water using high-level disinfected forceps/pickups.
- Allow items to air dry. Use immediately or store in a high-level disinfected container for up to 1 week.
- Use the same water throughout the day, adding only enough to keep the surfaces at least 2 cm above the equipment to be disinfected. Frequent draining and replacement of water increases the risk of mineral deposit.

High-level disinfection with chemicals

Items required

- Disinfectant solution such as a 2% glutaraldehyde (i.e., Cidex)
- Plastic bucket or container for soaking
- Boiled water for rinsing

Process

- Decontaminate, clean and rinse items thoroughly.
- Completely immerse items in a high-level disinfectant solution so that the solution touches all surfaces. Open jointed instrument such as clamps and scissors. Disassemble items composed of more than one part. Make sure that any bowls and containers to be disinfected are full of chemical solution.
- Soak for 20 minutes. Do not add or remove any items once timing has begun. Remove, using disinfected forceps or gloves.
- Thoroughly rinse items with boiled water.
- Allow to air dry. Use immediately or store in a high-level disinfected container for up to 1 week.

Precautions

- The vapours of glutaraldehyde are toxic and irritating to the skin, eyes and respiratory tract. Always wear gloves and use it in a well-ventilated area.

- Chemical disinfection of needles and syringes should be avoided because they are difficult to rinse effectively, and chemical residues may interfere with the action of medications being injected.

3.2.4.5 Sterilization

Sterilization kills all microorganisms including endospores and should be used for all objects entering body cavities or the vascular system. Sterilization can be achieved by using steam (autoclaving), dry heat (oven) or soaking in a chemical sterilant.

Steam sterilization

High-pressure saturated steam is generally the method of choice for sterilizing instrument and other items used in family planning and other healthcare facilities.

Items required

- Autoclave
- Wrapping material (paper or double-layered cotton)
- Fuel source: electricity or kerosene stove

Process

- Decontaminate, clean, rinse and air dry items thoroughly.
- Wrap items with desired wrapping materials.
- Arrange items/packs in autoclave to allow free circulation of steam.
- Sterilize wrapped items for 30 minutes, unwrapped items for 20 minutes at 121°C (250°F) and 106 kPa pressure 915 lbs./in). If using a mixed load, sterilize for 30 minutes. Start timing when required temperature and pressure have been reached.
- When time is complete, turn off heater and release the pressure valve. Wait until pressure gauge reads zero (approximately 20 to 30 minutes) to prevent steam from escaping abruptly when opening the door and hurting the person performing the procedure.
- Wrapped items can be stored for up to 7 days. Unwrapped items should be used immediately or stored in a covered sterile container for up to 7 days.

Chemical sterilization

Chemical sterilization may be used for items which are sensitive to heat such as endoscopes.

Items required

- Chemical sterilant: 2% glutaraldehyde (i.e., Cidex)
- Clean container with cover
- Sterile water for rinsing

Process

- Decontaminate, clean, rinse and dry items thoroughly.
- Completely immerse items in chemical sterilant solution. Open jointed instrument such as clamps and scissors. Disassemble items composed of more than one part. Make sure that any bowls and containers to be disinfected are full of chemical solution.
- Allow to soak for at least 8–10 hours in 2% glutaraldehyde solution**.** Do not add or remove any items once timing has begun.
- Remove items with sterile forceps/pickups, rinse well with sterile water and allow to air dry.
- Store in a covered sterile container for up to 7 days.

Storage of sterile or disinfected equipment

Proper storage of high-level disinfected and sterilized equipment is just as important as the high-level disinfection or sterilization process itself.

Sterilized/disinfected equipment should be stored in enclosed shelves or in covered containers to protect it from moisture, dust and debris. The storage area should be easily accessible, but away from circulation of contaminated material and individuals not related to the preparation or handling of equipment and materials. It should also be separated from the area where contaminated material is cleaned and prepared for sterilization or disinfection.

Remember

- Store the packs when they reach room temperature.
- Do not place warm packages in plastic dust covers. Moisture will be trapped and remain there until opened.
- If the pack is dropped, torn or gets wet, consider it contaminated.
- Mark packs and containers used for storing sterile or disinfected items with expiration date and list of items.
- Store packs and containers (drums) containing sterile items off the floor.
- Items should be stored in an enclosed cabinet.
- Re-process objects which have not been used within 1 week.

3.3 WASTE DISPOSAL

Wastes from family planning and health care facilities may be non-contaminated or contaminated.

The purpose of proper disposal of clinic wastes is to:

- Prevent the spread of infection to clinic personnel who handle the waste, and to the local community.
- Protect those who handle wastes from accidental injury.

- Provide an aesthetically pleasing atmosphere.
- Prevent infestation of vermin and other disease carriers.

Do not pile contaminated waste behind the clinic. This practice puts staff and members of the community at risk for injury and infection.

Proper management of waste items minimizes the spread of infection and harm to clinic personnel and to the local community. Proper management includes sorting, transportation and disposal.

Sorting

Separate containers should be used for disposing of general and medical waste. The person who generates it should put waste in the appropriate containers.

Within the health facility wastes are to be sorted and segregated as follows:

- **Sharps** disposed in puncture proof container
- **Burnable contaminated and non-contaminated wastes** collected in covered plastic or metal buckets
- **Human tissues** collected in leak-proof container
- **Glass** collected in separate container with lead

Transportation of waste

Waste containers in operating theatres, procedure rooms, indoor rooms, toilets and sluice rooms should be emptied when they become three quarters full (at least once daily). Transport contaminated waste in covered, leak-proof waste containers to the disposal site. Persons handling wastes should wear heavy gloves.

Disposal of waste

Whenever possible, medical waste should be disposed of on the premises; this allows staff who understand the risks involved to supervise the disposal process.

Burning is preferable method to burying medical waste, because the high temperature destroys microorganisms and reduces the amount of waste. Burning in an incinerator or oil drum is recommended.

If medical waste cannot be burned, onsite burial is the next best option. However, burial is feasible only when there is sufficient space to dig a pit the size needed to accommodate the amount of medical waste generated at the facility. Choose a site that is at least 50 meters away from any water source to avoid contaminating the water source. A fence or wall to limit access to it and to prevent scavenging for waste should surround the pit.

Remember

- Use non-corrosive washable containers (plastic or galvanized metal) with covers for contaminated wastes.
- Place waste containers at convenient places for users (carrying waste from place to place increases the risk of infection for handlers).
- Equipment which is used to hold and transport wastes must not be used for any other purpose in the clinic or health care facility.
- Wash all waste containers with a disinfectant cleaning solution (e.g., 0.5% chlorine solution) and rinse with water. (Clean contaminated waste containers each time they are emptied, and non-contaminated ones when visibly soiled.)
- When possible, use separate containers for combustible and non-combustible wastes. (This prevents workers from having to handle and separate wastes by hand later.)
- Wash hands after handling wastes.

3.4 MAINTENANCE OF OPERATING THEATRE

The following points should be considered to maintain the operating theatre as a standard facility for providing services.

- In static clinics, the operating theatre and the IUD insertion area should have a tile or concrete floor that can be easily and thoroughly cleaned.
- The operating theatre should be enclosed, free of dust, fly-proof, have adequate lighting, and be well isolated from the part of the clinic that is open to the public. The operating theatre should be locked when not in use.
- The operating theatre should not store unnecessary drugs, equipments and supplies. Ideally, the operating theatre should be air-conditioned, but if a fan must be used, it should be a pedestal fan (stand fan).
- Windows should be 1.8 m (6 ft.) above the floor, or high enough to prevent cross-ventilation in the operative field, and should be screened against flies and mosquitoes.
- If there is a problem with insects, the room should be fumigated with an insecticide at least once a week, on non-working days.
- After each case, the operating table, floor around the table (if blood or body secretion spilled), instrument stands and other potentially contaminated areas such as light handles and counter tops should be wiped down with a 0.5% chlorine solution. This procedure should be carried out at the end of the day with a cleaning solution that contains both a disinfectant (chlorine) and a detergent (soap). On the morning of each day that the operating theatre is to be in use, the floor should be cleaned with a damp mop (water only) and counters/table tops wiped with a damp rag (water only).
- The operating theatre should be thoroughly cleaned at least once a week.

3.5 EQUIPMENT PROCESSING AREA

- The equipment processing area should be designed in such a way so that there is no chance of cross contamination. Different steps of equipment processing activities should be done in separate area as follow:
- **Receiving and Clean-up Area**: All soiled items are received and washed, rinsed and dried in this area. They should already be decontaminated before they arrive here. Items should be decontaminated immediately after use, in the area where they were used.
- **Clean Work Area**: Cleaned items are wrapped when appropriate and high-level disinfected or sterilized in this area.
- **Sterile Storage Area**: All processed items should be stored in this area, which is not located next to the receiving area. Sterile items should be stored in a closed cabinet so that they don't become easily contaminated by general activity in the room, and should be kept dry.

Management of injuries from needles and other sharps

In case of injury with a used needle or other sharp or if blood/body fluids are splashed into the mouth, eyes or onto broken skin, carry out the following procedure:

Needle pricks, cuts, or scratches (that penetrate the skin)

- Wash thoroughly with soap and water.
- Cover with a waterproof sterile dressing.

Splashes to mouth or eyes

Rinse thoroughly with plenty of running water.

Most experts agree that the larger the volume of blood involved in the exposure, the greater the risk of infection. Therefore first aid must begin as soon as possible after the exposure and aim to flush away as much inoculation as possible.

For All Exposures That Penetrate Skin

If you are sure that the patient is positive for blood-borne infections, you can reduce the risk of transmission by using post-exposure prophylaxis measures. To receive such preventive measures, please consult with the DHO, or infectious disease specialist familiar with post-exposure prophylaxis.

CHAPTER FOUR

MEDICAL SUPERVISION, MONITORING AND LOGISTICS

CHAPTER FOUR

MEDICAL SUPERVISION, MONITORING AND LOGISTICS

4.1 AIM

A supervision and monitoring systems has two objectives:

- To improve the quality and safety of family planning services, and
- To improve the ability of the program to deliver services for the benefit of the client.

Supervision and monitoring is an ongoing process performed by both the staff at the service site and by district clinical supervisors and managers, for example, District Health Officer (DHO) and District Public Health Officer (DPHO) and by Certified Supervisors.

At the district level, periodic supervision of the hospital, health posts and outreach clinics will be the responsibility of the DHO, DPHO and other supervisory staff including the Family Planning Assistants and Health Post In-charge.

Supervision may focus on overall maintenance of building and equipment, cleanliness, counselling, informed choice/consent, infection prevention measures, emergency preparedness, client assessment, skills of providers, attitudes of providers, adequacy of logistic and supplies, completion of consent forms, completeness and accuracy of medical records and monthly reports. Supervising team may also assist with the identification and registration of applicable inservice training courses offered through the NHTC.

The supervisory team as well as the clinic staff should use the checklist to maintain the standard of the services. These are the guidelines provided by the FHD, MOH for providing quality family planning services at the health facilities.

4.2 COMPONENTS OF MONITORING AND SUPERVISION

The medical supervision and monitoring system has four major components: self-assessment and site certification, direct observation, record keeping and reporting, and special research and investigation.

These four components are described in detail in the following sections.

4.3 SELF-ASSESSMENT AND SITE CERTIFICATION

4.3.1 Methods of Self-Assessment

All personnel including Doctors/Medical Officers (MOs), DHOs, DPHOs, SNs, HAs, AHWs, ANMs, maternal and child health workers (MCHWs), VHWs and support staff should continuously assess their own activities and behaviour. The technical practices of all the staff should be in adherence to the *National Medical Standard*. Should any staff be in doubt as to the quality of services provided, he/she should refer

to this *National Medical Standard* for guidance or if possible get help from Family Health Division to clarify their doubts.

4.3.2 Site Certification

Checklists based on the *National Medical Standard* have been developed for certifying service sites. Rather than visiting every centre, FHD will provide these checklists to the concerned DHO/DPHO. This will allow the DHO/DPHO to select the criteria for certification, and to maintain the facility at all times to the level of the *National Medical Standard*. The site certification forms will be filled out before starting the service and at least once a year after that for each service site for clinical contraception and copies forwarded to the Regional Health Directorate Office and the FHD. In addition, spot supervisory visits will be made as feasible. Institutionalised family planning districts will receive regular monitoring visits from the FHD/Quality of Care Management Centre (QOCMC).

The following types of certification forms are recommended:

- Services for VSC (See Appendix D III VSC site criteria).
- Norplant and IUD Site Certification (See Appendix B II and C II).
- Private clinics and nongovernmental organizations (NGOs) will use the same criteria for a site certification as the government facilities.

4.4 DIRECT OBSERVATIONS/MONITORING

4.4.1 Methods of Direct Observation

Some aspects of quality of care can only be monitored by actually seeing activities and behaviours of staff during provision of services. Methods of direct observation include routine daily supervision by local staff, routine supervisory visits to health posts by district and regional supervisors, and random site visit by supervisors from FHD/QOCMC or team or individual assigned by FHD. The primary purpose of this site visit is to provide support and guidance to the clinic to achieve and maintain standard quality services. The supervisor will write a report about the findings, support and recommendations given during the site visit, and provide it to the FHD.

4.4.2 Certification of Providers (VSC, Norplant Implants, IUD)

NHTC will issue certificates to providers of clinical family planning methods after the successful completion of a basic skills course in family planning under the supervision of clinical trainers certified by NHTC.

NHTC will certify a provider who was trained prior to the establishment of NHTC, if two trainers attest in writing that he/she has demonstrated competence during observation.

The certificates for each method will be printed and signed by NHTC and provided to each competent trainee. If a trainee is trained in more than one method (e.g., vasectomy and Norplant implants), a certificate is provided for each method.

Trainees who are not fully competent, and whose training cannot be extended further at the time, will be given only a certificate of course attendance, but not of competency.

Clinical family planning services can only be provided by trained health personnel. If there is a need for new service providers, the DHO or DPHO will make a request to the FHD in writing for the training of their staff in specific family planning methods. FHD will recommend those candidates to NHTC for training. All the participants should fulfil the basic selection criteria for the specific training as outlined by NHTC.

4.5 RECORD KEEPING AND REPORTING

4.5.1 Client Medical Records

Each family planning acceptors has a Medical Record Card for recording medical information. Screening operative and post-operative findings are recorded on the medical records cards. It is the responsibility of the provider to ensure that these forms are completed. There are four types of forms, depending on the method. These forms are shown in Appendix-A III, A IV, E I and F I.

In the case of procedures requiring signed consent, the signed consent will be kept as part of the medical record.

4.5.2 Management Information System

The health management information system (HMIS) helps collect data from all over the country and feeds them to the central data bank. The HMIS has several types of records and reports. The records are collected from the record registers maintained at each service site. The **Monthly Report Forms** gives vital information as to the number of new acceptors, repeat client visits, method change, etc. These data are collected by the DHO and forwarded to the central and regional offices. These data help to identify trends in program growth, staff workloads, Contraceptive Prevalence Rate (CPR) and Couple Years Protection (CYP). These reports and inferences are used as management tools for making decisions about which method needs extra program emphasis or which area should receive further service strengthening. All service sites should maintain their clinical records correctly and update them regularly to assist the National Family Planning program.

4.5.3 Logistic Records

From Central Stores, contraceptive supplies are sent to district stores. Buffer stocks are kept at Regional Warehouses for distribution to districts when needed. It is the duty of the DHO/DPHO to ensure distribution within the district to all service sites, including hospitals, the Primary Health Care Centre, health posts and NGOs who submit their data to the DHO.

In order to rationalize the distribution system, logistic forms have been developed for use at central, regional, district and service site levels. These forms report use of supplies and serve as order forms for replenishment of supplies at quarterly intervals; Emergency Resupply can be made at any time.

4.5.4 Special Reports for Deaths and Complications

Every death that may have been associated with clinical contraception will be investigated by a doctor who is not on the staff of the facility where the death occurred. FHD can lead a committee of family planning experts to do further investigation of such deaths, if required. For deaths there is a special form for the investigation. This form is shown in Appendix G III.

4.5.5 Special Research and Investigation

In-depth research studies and investigations enable programs to give special and thorough attention to carefully selected issues. The FHD may wish to examine important issues or problems in depth (e.g., a study of client satisfaction, or reasons for dropouts of methods, or value of post-operative antibiotics). Such studies may be costly, may require independent contractors and the topics need to be carefully selected for the benefit of the program.

4.5.6 Resources for Medical Reporting and Supervision

A monitoring and supervision system requires both human and material resources. Resources need to be available at central, regional and district levels for this activity. The cost of monitoring and supervision is part of the total cost of the service program. These costs should be included as an integral part of the program budget at regional and district levels.

CHAPTER FIVE

FAMILY PLANNING COMPLICATION MANAGEMENT

CHAPTER FIVE

FAMILY PLANNING COMPLICATION MANAGEMENT SYSTEM

5.1 PURPOSE OF THE COMPLICATION MANAGEMENT SYSTEM

- Ensure efficient management of family planning related complications
- Support service providers and DHOs in management of complications
- Maintain accurate documentation
- Serve as the basis for disbursement of complication funds
- Improve family planning service delivery system and training curriculum, and reduce number of complications

5.2 DEFINITION OF A COMPLICATION

A complication is an unexpected occurrence that is directly related to a procedure or method and requires management beyond what is considered normal. A complication may be spontaneous (occurring during or soon after completion of a procedure, example: uterine perforation) or delayed (example: wound infection, method failure—pregnancy).

5.3 REFERENCE MANUALS AND GUIDELINES

Reference manuals on clinical guidelines for management of spontaneous and delayed complications are found in method-specific training manuals and other reference books published by the His Majesty's Government of Nepal (HMG/N) MOH:

- *Managing Emergencies in Family Planning Services in Nepal*
- *No-Scalpel Vasectomy Reference Manual*
- *Minilaparotomy Reference Manual*
- *Laparotomy Reference Manual*
- *Intrauterine Device Reference Manual*
- *Norplant Reference Manual*
- *COFP/Counselling Reference Manual*
- *Reproductive Health Clinical Protocols for Medical Officers*

5.4 PREVENTION AND MANAGEMENT OF COMPLICATIONS

- To reduce the numbers of complications, the physician/nurse in charge should regularly orient other staff to infection prevention practices, aseptic technique and review operating theatre management. Also, emergency preparedness should be reviewed and medications and equipment regularly checked to ensure that they are functional.

- All health care facilities (HMG/N, family planning private clinics, and NGO clinics) are to treat, stabilize and, if required, assist with referral/transfer.
- Staff will initiate clinical interventions immediately to the extent to which they are trained. If the complication is beyond the scope of their expertise, staff will stabilize the client and coordinate transfer.
- Transfer is to the facility that can appropriately and skilfully treat the complication, not necessarily the closest higher facility.
- The client will be stabilized before transfer (intravenous (IV) hydration, oxygen, control of bleeding whatever is vital and essential).
- A brief written summary of findings/interventions is to accompany the client.
- The DHO will be notified of the complication, and will oversee and coordinate the management. FHD will assist as needed.
- DHO/FHD will support service providers who are involved in an emergency and will make every effort to help coordinate care and to assure service provider safety.

5.4.1 Acuity Levels and Complication Reporting System

#	Acuity	Example	Reporting System
I	Minor	• wound separation • minor wound infection • minor complaints (headache, backache, fatigue)	Minor Complication Report Form (Appendix G-II) filed quarterly by DHO and sent to FHD.
II	Acute	• limited haematoma responding to conservative management • drug reaction • limited haemorrhage	DHO to be notified. Surgical Complication Report Form (Appendix G-I) or Minor Complication Report Form (Appendix G-II) completed by DHO, filed in DPHO and sent to FHD.
III	Serious and/or Life-Threatening	• bowel, bladder, fallopian tube, or testis laceration • sepsis, systemic infection peritonitis or tetanus • severe haemorrhage • large haematoma requiring I&D or blood transfusion • gas/air embolism • convulsions • aspiration of vomitus • allergic or anaphylactic reactions • drug overdose/over-sedation • respiratory/cardiac depression or arrest	Immediately contact DHO. DHO to assist with management and consult with FHD as needed. Surgical Complication Report Form (Appendix G-I) filled out by DHO filed in DPHO and sent to FHD.

#	Acuity	Example	Reporting System
IV	Chronic and Other Conditions	• Sterilization method failure • HBV, HCV, HIV • Impacted IUD • Surgical removal of Norplant • Inability to complete procedure • Incorrect procedure (example: occlusion of ligamentum rotundum) • Chronic pain • Psychosomatic illness, regret following death of children • Spermatocele, fistula	Notify DHO; Surgical Complication Report Form (Appendix G-I) completed by DHO and sent to FHD. FHD will assist DHO with arrangement of consultation and/or referral as needed.
V	Death following or during procedure	Any complication that is directly related to the family planning procedure or method and results in death	Immediate notification to DHO who will contact FHD Director. File Death Investigation Form (Appendix G-III).

5.4.2 Confidentiality

The content of a complication form is confidential. It is only discussed with persons directly involved in the management of the case and the DHO/FHD staff and FHD advisors.

5.4.3 Filing Minor Complications (Acuity I)

Minor complications (Acuity I) are to be collected at the health care facilities providing the service.

- Quarterly, the District Family Planning Assistant (FPA)/DPHO staff will collect the information concerning complications from the district health facilities.
- The Minor Complication Report Form is filled in duplicate: one form remains at the health facility and other form is sent to DHO.
- A summary of the findings from these forms will be sent from DHO to FHD.
- See Appendix G-II for a sample of the Minor Complication Report Form.

5.4.4 Filing Complication Form (Acuity II and above)

- The Surgical Complication Report Form is filled out by the DHO with the assistance of the service provider overseeing the case.
- The form is available in the DPHO and in the NMS and is filled out in duplicate: one copy is filed at the DPHO; the other copy forwarded to FHD along with accompanying paperwork:
  - Client summary sheet
  - Consent form (if applicable)
  - Prescriptions for medications
  - X-ray/test findings and fees
  - Procedures and lab tests
  - Receipts for treatment, supplies, medications

- Forms are to be submitted as soon as possible, without delay (i.e., immediately after resolution of the complication). These forms are not to be collected at the DPHO and sent only at the end of the fiscal year, as this creates difficulties with data collection and reimbursements.
- See Appendix G-I for a sample of the Surgical Complication Report Form.

5.4.5 Filing of Death Investigation Form (Acuity V)

- The DHO is to notify the FHD Director by phone about the client's death.
- The form is to be filled out by the DHO and sent to FHD with accompanying documentation.
- FHD will assist the DHO in coordinating an investigation if this is determined by the FHD Director.
- A sample of the Death Investigation form is in Appendix G-III.

5.4.6 Budgetary System

- Each district receives funds to cover the expenses for treatment of minor family planning complications. Costs related to management of minor complications are paid through the district budgets.
- For major complications budget provision is made at DoHS. DHO/DPHO should complete the necessary process while providing treatment for complicated clients. They should submit all necessary documents to FHD as mentioned in 5.4.4.

CHAPTER SIX

NON-CLINICAL METHODS

CHAPTER SIX

NON-CLINICAL METHODS

CONDOMS

6.1 AIM

6.1.1 Types of Condoms Available in Nepal

Most condoms are made of thin latex rubber although some are made of animal tissue (lamb caecum) or of polyurethane. Condoms are freely available at all levels of health facilities of Nepal including community based delivery. “Panther” and “Dhal” are also available in Nepal and have to be purchased from retail stores.

6.1.2 Effectiveness

Condom effectiveness in the first year varies from 97% (perfect use) to 86% (typical use). In a number of studies, condom breakage rates have been less than 2%. Condoms are several times more likely to fall off or slip off than to break.

6.2 PREREQUISITES

6.2.1 Facilities

It is not necessary to have a special facility for distribution of condoms, but it is important to have a place to do counselling and demonstration of use.

6.2.2 Category of provider/training

Condoms are available for people as needed without consulting with health service provider through the “condom box.” Condoms are also distributed free of charge by FCHVs, TBAs, and many NGO community health workers.

6.2.3 Recording keeping and reporting

Formal registration is not required for obtaining condoms. However, the health facility or health worker can maintain a register for recording clients and numbers distributed.

6.3 SERVICE DELIVERY

6.3.1 Counselling and informed choice (For more detail, refer to Chapter One: Counselling and Informed Choice)

- Condom clients should receive appropriate counselling for selecting and using the method, whenever possible and convenient for them. Counselling helps to ensure informed choice and proper condom use. However, counselling should not be a prerequisite for providing condoms.

- As with female clients, male counselling should include information on reproduction, sexuality and contraception, and should involve the use of using flipcharts and anatomic models. Misconceptions about methods should be clarified.

- Condoms should be demonstrated using an anatomic model, not just verbally explained or handed out. Instructions for condom use should be made easily available in clinics.

- Couple counselling to be encouraged.

Attention should be given to the use of condoms as both a family planning method and to prevent STIs: "Dual protection."

6.3.2 Eligibility

Indication: Particularly appropriate for the following clients:

- A client who needs or desires protection against STIs, including HIV transmission
- A male partner who wishes to take responsibility for contraception
- A client who is worried about side effects of other methods.
- A client who needs a temporary alternative or backup to another method (e.g., for the first 20 ejaculations or 3 months following vasectomy, if a women forgets to take her COCs for 2 or more days)

Precautions

Allergy to latex rubber in either the man or the women

6.3.3 Client Instructions and Follow-up

Verbal and written instructions should be given to anyone coming to the clinic for condoms for the first time. Demonstrate condom application on the penis model.

6.3.4 Procedure of Condom Use

- Put on the condom before any genital contact; otherwise, sperm and/or infectious agents may be transmitted.
- Compress the tip of the condom between the finger and thumb, and leave a half inch of latex material at the end of the erect penis. This will leave a space for the ejaculate to collect and will decrease chances of condom breakage.
- Use only spermicides. Do not use petroleum jelly (Vaseline®), mineral oil, lotions or other oil-based products for lubrication, because they increase the chance of condom breakage.

- After ejaculation, withdraw the penis from the vagina when it is still erect, and hold the ring of the condom at the base of the penis firmly with the fingers so that the condom will not slip off and release the ejaculate.

Refer to the *COFP/Counselling Reference Manual* for details of condom use.

Remember

- Each condom should be used only once and discarded.
- Keep an extra supply of condoms on hand. Do not store them in a warm or humid place, such as a wallet, because they will deteriorate and may leak during use.
- The date on the condom package is the date that the condom was manufactured, not the expiration date. Under proper storage conditions the condom should be safe for 5 years.
- To increase the effectiveness of condoms, use contraceptive foam or spermicides at the same time.
- Check the condom before throwing it away. A quick look will tell the client if it is intact. If the condom tears or comes off in the vagina, use emergency contraceptions (refer to Chapter 17: Emergency Contraception).

6.4 SIDE EFFECTS AND MANAGEMENT

Table 6-1: Side Effects and Their Management for Condoms

Side Effect or Problem	Assessment	Management
Condom broken or breakage suspected	Check condom for a hole or demonstrable leak.	**Before use**: Discard and use new condom or use a spermicide in conjunction with the condom. **After use**: If leakage is suspected, consider a method of emergency contraception. Take four white pills of Nilocon or Lo-femenal as soon as possible after intercourse (within 72 hrs.). And another four white pills after 12 hours. A Copper T 380A may also be inserted within 5 days of unprotected sex as another method of emergency contraception. Refer to Chapter Seventeen: Emergency Contraception.
Local irritation to the penis	Determine whether allergic or mechanical reaction present. Rule out infection.	If allergic reaction apparent and persists, then assist the client to choose another method of family planning.
Diminished sexual pleasure	Couple (male) complains of decreased pleasure or decreased sensation during intercourse.	If perception of decreased sensitivity is not tolerable, assist the client to choose another method of family planning.

FOAMING TABLETS AND SPERMICIDES

6.5 AIM

6.5.1 Types of Foaming Tablets and Spermicides Available in Nepal

"Kamal" is a contraceptive foaming vaginal suppository that is available in medical shops in Nepal. Foaming tablets and spermcides are not available in the government family planning service delivery system.

6.5.2 Effectiveness

Spermicide effectiveness in the first year is 97% (perfect use) to 79% (typical use). Its effectiveness is highly dependent upon correct use and greatly increased when used together with condoms.

6.6 SERVICE DELIVERY

6.6.1 Counselling and Informed Choice (For more detailed refer to Chapter One: Counselling and Informed Choice.)

Counselling and informed choice are prerequisites for the provision of spermicides and foam tablets. The woman or couple must be informed of the advantages and disadvantages of using spermicides alone including:

- The higher risk of pregnancy as compared to other methods
- The proper use and care of spermicides, including the need to wait after insertion of suppositories and tablets before having intercourse

6.6.2 Eligibility: Spermicides should be provided to any individual who requests them for contraception and/or protection against STIs.

Indications

Spermicides may be appropriate for couples who have decided to use a barrier method and:

- Wish to use a spermicide in association with condom
- Want to space children for a limited time, but can tolerate a high failure rate
- Have contraindications to, or cannot use, more effective methods (such as IUD or methods containing hormones)

Precautions

- Has allergies to any of the chemicals used in the spermicide
- Needs highly effective protection against pregnancy

6.6.3 Client Instructions and Follow-up

Advise the client about:

- The importance of using spermicide before each act of intercourse
- The need for a 10–15 minutes interval after insertion for foaming tablets or suppositories
- The importance of following the recommendations of the manufacture for use and storage of each individual product
- The need for another application if intercourse takes place more than 1 hour after initial application

6.6.4 Procedure for Use

- Wash hands with soap and water.
- While lying down, insert the suppository high into the vagina near the cervix:
  - Hold the tablet between the middle and forefinger.
  - Insert tablet deep into the vagina with the forefinger until it reaches the cervix.
- Wait at least 10 minutes for suppository to foam and be fully effective before having intercourse.
- When the suppository foams, there may be a feeling of heat in the vagina.
- Insert an additional suppository for each act of intercourse.
- If intercourse does not take place within 1 to 2 hours after insertion of the spermicide, the woman is no longer protected against pregnancy and a new suppository must be inserted if there is a possibility of intercourse.
- It is not necessary to douche or rinse the vagina after using spermicides.

6.6.5 Side Effects and Management

Table 6-2: Management of Side Effects for Foaming Tablet/Spermicides

Side Effect Or Problem	Assessment	Management
Vaginal irritation	Rule out vaginitis, STIs.	If caused by spermicide, switch to another contraceptive method.
Penile irritation and discomfort	Rule out vaginitis, STIs.	If caused by spermicide, switch to another contraceptive method.
Heat sensation in the vagina is bothersome	Rule out allergic or inflammatory reaction.	If caused by spermicide, switch to another contraceptive method.
Tablets fail to melt	Client states that tablet remains intact or that no foam is apparent.	Check for vaginal discharge that may inhibit reaction between vaginal mucus and suppository. If no discharge present, consider another contraceptive method.

NATURAL FAMILY PLANNING METHOD

6.7 AIM

A couple voluntarily avoids sexual intercourse during the fertile phase of the woman's cycle (time when the woman can become pregnant) or has intercourse during the fertile phase to achieve pregnancy.

Techniques used to determine high-risk pregnancy days include:

The cervical mucus method monitors the quality and quantity of cervical mucus at the vaginal opening.

- Fertile mucous occurs approximately mid-cycle and is abundant, thin, slippery and elastic, like an egg white.
- Infertile mucous is thick, sticky and scant and is found at the beginning and end of the cycle.
- Abstinence is practiced when fertile mucus is present.

The basal body temperature method monitors the resting body temperature each day.

- Just at or immediately after ovulation (mid-cycle), there is 0.3–0.5° rise in body temperature.
- Abstinence is practiced from the beginning of the cycle until 3 days after the rise in body temperature.

The sympto-thermal method combines observation of cervical mucus and monitoring of the basal body temperature in order to more accurately pinpoint the fertile period.

The calendar method uses a mathematical formula to calculate the fertile period. The woman first must observe the length of at least six menstrual cycles and then applies the formula to these observations.

6.7.1 Effectiveness

When natural family planning (NFP) methods are taught and used perfectly, the ineffectiveness can be as high as 95–98%. The typical effectiveness rate is 75%. To use NFP effectively, most couples will need to modify their sexual behaviour. They will be required to observe the woman's fertility signs on a daily basis and record them according to a standard system. The couple will need to communicate with each other to establish their fertility intentions, acknowledge the woman's fertile times and, if pregnancy is not desired, abstain from sexual intercourse during the woman's fertile days.

6.8 SERVICE DELIVERY

6.8.1 Eligibility

Indications

Natural family planning may be an appropriate method for:

- Highly motivated couples willing to undergo extensive abstinence as well as observing, recording and interpreting fertility signs
- Women who have a regular menstrual cycle
- Couples who wish to avoid pregnancy without using mechanical or pharmacological contraceptives
- Couples for whom other more effective methods are contraindicated or cannot be used
- Couples with religious/cultural prescription against other methods
- Couples who can tolerate a high failure rate
- Not appropriate for adolescents until cycle is regular

COITUS INTERRUPTUS (WITHDRAWAL)

6.9 AIM

Withdrawal is a traditional family planning method in which the man completely removes his penis from the women's vagina before he ejaculates.

6.9.1 Effectiveness

The first year effectiveness is 96% (perfect use) to 81% (typical use).

6.10 SERVICE DELIVERY

6.10.1 Eligibility

Indications

- Couples who can communicate well during intercourse
- Disciplined men who can ignore urge to continue with intercourse
- Couples with cultural/religious prescriptions against other methods
- Couples who can tolerate high failure rate
- Adolescents: not recommended due to low compliance

6.10.2 Client Instructions and Follow-up

- Practice withdrawal using back-up method until both partners master withdrawal.
- Use emergency contraception if ejaculation occurs prior to withdrawal.

Remember

- Coitus interuptus does not eliminate the risk of STIs: the pre-ejaculate can contain HIV-infected cells, and lesions or ulcers on the genitals can transmit infections.
- Although popularly considered an effective method, coitus interuptus provides efficacy similar to that of barrier methods of contraception.

CHAPTER SEVEN

COMBINED ORAL CONTRACEPTIVE PILLS (COCs)

CHAPTER SEVEN

COMBINED ORAL CONTRACEPTIVE PILLS (COCs)

7.1 AIM

7.1.1 Types of COCs Available in Nepal

In Nepal, the most common COCs are combined low dose pills in 28-day packages. LO-FEMINAL, available at all HMG/N facilities, contains norgestrel (progestin) 0.3 mg and ethinyl estradiol (estrogen) 0.03µg in each pill. The last 7 brown pills contain ferrous fumarate (iron). "Nilocon" and "Sunaulo Gulaf" are available throughout the country in medical shops.

7.1.2 Effectiveness

Among perfect users (users who miss no pills and follow instructions perfectly) it is highly effective (99.9%) within the first year. Among typical users, it is effective only about 97% during the first year. Pregnancy rates during typical use are determined by the extent and type of imperfect use.

7.1.3 Return of Fertility

When the woman stops taking the pill, her fertility will return to normal relatively quickly, although it may not be immediate. Uses of the pill does not alter a woman's capacity for normal fertile cycles. If a woman does not resume normal cycles after stopping the pill, a specific cause other than pill use should be sought.

7.2 PREREQUISITES

7.2.1 Facilities

Minimum facilities for providing oral contraceptive services are:

- A place to register and counselling and
- Examination of the client

7.2.2 Supplies

- First supply 3-month packet
- Resupply 3- to 6-month packet

7.2.3 Category of Provider/Training

The COC pill can be provided by any health worker who has been trained to explain pill use and manage minor side effects, and explain alternative methods of contraception. Beyond the health post, pills may be provided for the first time by the VHW, the MCHW and resupplied by the FCHV.

7.2.4 Record Keeping and Reporting

The provider should fill the following forms before and after providing COC:

- Master Register (HMIS No. 1) Appendix A I
- Multipurpose Contact Card (HMIS No. 2) Appendix A II
- Hormonal Family Planning Card (HMIS No. 11) Appendix A III
- Family Planning Register (HMIS No. 13) Appendix A V

The provider should ensure that the medical record forms are completed, regularly maintained and reported to the DHO/DPHO.

7.3 SERVICE DELIVERY

7.3.1 Counselling and Informed Choice (For more detailed information refer to Chapter One: Counselling and Informed Choice.)

All COC clients must receive appropriate counselling for selecting and using the methods. Encourage clients to ask all their questions so that any uncertainties and misunderstandings can be cleared up.

7.3.2 Eligibility

Indications

COCs should be provided to any woman who requests them after receiving appropriate counselling and reaching an informed decision, and who does not have any contraindications to their use.

COCs may be particularly appropriate for those who:

- Want a highly effective method of contraception
- Are motivated and willing to use a method which requires action daily, and will be able to obtain supplies on a continuous basis
- May benefit from one or more of the ancillary protective health effects of COC use; this include women who have:
  - Anaemia from heavy menstrual bleeding
  - A history of ectopic pregnancy
  - Painful menstrual periods
  - Recurrent benign ovarian cysts
  - A history of, or are at risk of, acute pelvic inflammatory disease (PID)
  - Family history of ovarian cancer

ALERT: The following conditions where there are no restriction for COC Use

- **Age**: Adolescents may safely use COCs, and the risk of COC use does not increase with age (more than 35) if there are none of the following risk factors:
  - Smoking
  - Diabetes
  - A mother, father, sister or brother who had a heart attack or stroke before age 50
  - Family history of increased lipids (hyperlipidism)

- **Headaches (Non-migraine "tension" headaches)**: Women with non-migraine headache are not at increased health risk from COCs.

- **Diabetes**: Although glucose (carbohydrate) tolerance may change slightly, both insulin-dependent and noninsulin dependent diabetics can use COCs unless they have or develop vascular disease or have diabetes for more than 20 years.

- **Genital tract cancer** (cervical, endometrial or ovarian): COC use reduces the risk of developing uterine (endometrial) cancer; therefore genital tract cancer patient can use COCs.

- **Pregnancy-related benign jaundice** (cholestasis): Although a history of pregnancy-related benign jaundice (cholestasis) may predict an increased risk of developing COC-related cholestasis, there is no known risk for using COCs in clients with this history.

Precautions

- **Has a suspected pregnancy by history, symptoms, or signs**: Although there is no reported harm to the woman or foetus from the small amount of estrogen and progestin in low-dose COCs, no health risk is considered acceptable. It is unwise for a woman to take any drugs in early pregnancy.
- **Six weeks to 6 months postpartum (while breastfeeding)**: Use by breastfeeding mother (6 weeks to 6 months postpartum) slightly diminishes the quantity of breast milk. These mothers should not use COCs unless other more appropriate methods (e.g., IUD or progestin-only method) are not available or acceptable.
- Taking anti-seizure drugs for **epilepsy** (seizure disorder) or **rifampin** for tuberculosis: Use of drugs for epilepsy (except valproic acid) and rifampin for tuberculosis causes the liver to metabolize estrogens and progestins very quickly and therefore COCs may be less effective with these anti-convulsants and rifampin. Overall, COCs do not appear to alter seizure activity, and can be provided with caution.

Contraindications

- **Breastfeeding**: COCs should not be initiated before 6 weeks postpartum.

- **Active liver disease (Jaundice)**: COCs are not recommended for clients until they have fully recovered from acute liver disease (i.e., until either 3 months after becoming asymptomatic or normal liver function returns). They should not be used unless more appropriate methods are not available or acceptable.

- **Breast cancer** (current or past with no current evidence of disease): For women with a history of breast cancer, COCs are not recommended, unless other more appropriate methods are not available or acceptable.

- **Smoking** over 20 cigarettes a day and **over age 35**: Client should use another contraceptive method (e.g., IUD or progestin-only method). Women 35 years or older who smoke (especially heavy smokers) are at increased risk of heart attack, stroke and other clotting problems if they use COCs.

- **Headaches** (recurrent vascular migraine with focal neurologic symptoms): Client should be advised to use another non-estrogen method.

- **High blood pressure** (hypertension, severe with or without vascular problems): If BP more than 160/100 (moderate hypertension) they should not use COCs.

- Current or past history of **venous thromboembolic disorders** (blood clots in the legs, lungs or eyes): Women who currently have blood clots or have a history of blood clots may be at increased risk of further clotting problems if they take COCs. These women should not take COCs if other methods are available.

7.3.3 Clinical Assessment

In Nepal, COCs are available without medical supervision because their health benefits far exceed their health risk. However, women who obtain their pills where screening is possible will benefit from a screening history and exam to rule out certain precautions and contraindications as follows:

- Known or suspected pregnancy
- Taking certain medications (rifampin for tuberculosis and medications for seizure disorders (epilepsy)
- Thromboembolic disorders (blood clots in the legs, lungs or eyes)
- Heavy smoker (if over 35)
- BP 160/100, history of hypertension if BP not taken
- History of high blood pressure, if blood pressure cuff not available
- Active jaundice

If none of these conditions are present, COCs may be given. If any of these conditions are suspected, the health care provider must carefully consider the risks and benefits

of COC use for this particular client. Refer also to Table 2-1 Client Screening Checklist for Hormonal Methods on page 2–2, and Contraindications and Precautions for COCs.

7.3.4 Clinical Procedure

Timing of initiation

- If pills are begun within 5 days of the start of menses, no backup method is needed.

- If pills are begun after the fifth day of the menstrual cycle, a backup method must be used for 7 days to ensure protection from pregnancy. It should be certain that the woman is not pregnant (See Figure 2-1: Flowchart to rule out pregnancy).

- **Postpartum**

  a) Breastfeeding mothers: If the woman is using the LAM, initiation can be delayed until her menses returns, or when she is no longer fully or nearly fully breastfeeding or at 6 months postpartum, which ever comes first.
  b) Non-breastfeeding mothers: After 3 weeks postpartum.

- Within 7 days following **spontaneous or induced first trimester abortion;** if, however, pills are begun after the fifth day, a backup method must be used for 7 days to ensure protection from pregnancy.

7.3.5 Client Instructions

Instructions for taking COCs

- Take one pill each day, preferably at the same time of day.
- Start with the pill in the top left hand corner of the packet and continue taking the next pill one each day until all the white pills are gone (for 21 days) and then start the brown pills taking one pill each day for 7 days until all are gone.
- When the client begins to take the COCs, she may have some bleeding between menstrual periods. The light bleeding is not her menstrual period, is not dangerous and will likely go away after the first 3 months. She should continue taking the pill each day.
- The client may have some nausea or dizziness or headaches because her body is adjusting to the pill. These discomforts usually disappear after one or two packs of pills. She should try taking the pill at bedtime or with the evening meal. If discomfort persists, she should come back to the clinic.
- When the 28-day pack is empty, the client should start taking pills from a new packet the next day. During the 7 days on the brown pills, she will have some withdrawal bleeding. Even if she is still bleeding after finishing them she should start the new packet the next day.
- Clients should not stop and start pills when their partner is away for a short period of time. COCs are not effective if not taken consistently.

- The client should use condoms in addition to COCs if she thinks there is any chance that she or her partner are at risk for exposure to STIs, including HIV/ Acquired Immunodeficiency Syndrome (AIDS).
- Acute vomiting and/or diarrhoea interfere with the effectiveness of COCs. If these symptoms persist for more than 24 hours, recommend the use of additional contraceptive protection until the client has been without the symptoms for 7 days.

Instructions for missed pills

- If she forgets to take one pill, she should take it as soon as she remembers, even if it means taking two pills on one day.
- If she forgets to take her pill 2 or more days in a row, she should take two pills every day until she catches up, and should use condoms or not have sex for 7 days. She should then go on and finish the packet of pills.

Follow-up care

Advise the client to visit a clinic or to contact community based services 3 months after starting COCs for a routine follow-up. In addition, encourage the client to visit the clinic or contact the community workers anytime, if necessary.

Assess the following:

- Assess the client's satisfaction with the method.
- Determine if the client has had any problems or side effects and, if so, record them in the clinical records.
- If any serious problem or side effect is detected, refer the client to a clinical facility.
- At the clinical facility, update the medical history; measure blood pressure and weight, and perform any examination indicated by the history.
- Provide appropriate counselling and/or treatment as required.

7.3.6 Side Effects and Management

Review the common COC side effects with the client, as well as what to do if certain problems occur.

Table 7-1: Management of Side Effects and Health Problems

Side Effect	Assessment	Management
Amenorrhoea (absence of vaginal bleeding or spotting)	Ask how she has been taking her pills. Has she missed any pills in the cycle? Has she stopped taking pills? Rule out pregnancy by history, symptoms and physical exam (speculum or bimanual) or a pregnancy test (if indicated and available).	If intrauterine pregnancy is confirmed, stop COCs and assure her that the small dose of estrogen and progestin in the COCs to which she was exposed will have no harmful effect on the foetus. If she is not pregnant, no treatment is required except counselling and reassurance. Explain that if her period was irregular before beginning COCs, it will usually be irregular when COCs are stopped. Advise client to return to clinic if amenorrhoea continues to be a concern. If client is not taking COCs correctly, review instructions for use. If the client is taking COCs correctly, reassure her. Explain that absent menses most likely is due to lack of build-up of uterine lining; there is no menstrual blood present.
Spotting or Bleeding (common during the first three months after starting the pills). **See also *Reproductive Health Clinical Protocols for Bleeding and Spotting on Hormonal Methods.***	Has client recently begun COCs? Ask if she has missed one or more pills, or if she takes pills at a different time every day. As appropriate: Exclude gynaecological problems (e.g., uterine tumours, pregnancy, abortion, PID). If client taking rifampin or epilepsy medication?	If yes, reassure. Advise that spotting and bleeding are common during the first 3 months of COCs use and decrease markedly in most women by the fourth month of use. Refer in 3 months if problem persists. If yes, give instructions about what to do for missed pills and the importance of taking the pill at the same time every day. If she continues to miss pills, she may need to switch to another method to minimize risk of pregnancy. If gynaecological problems are present, refer to a doctor if possible, or manage according to clinic practice. Counsel client to switch to another method until she discontinues rifampin or epilepsy medication.
High Blood Pressure	Allow 15 minutes rest, then repeat BP reading. Recheck BP on three visits, 1 week apart: Assess systolic BP; if over 160 mm Hg on two more visits one week apart, stop COCs. Assess diastolic BP; if greater than 110 mm Hg on one visit, or greater than 100 mm Hg on two successive visits 1 week apart, discontinue pill.	If blood pressure increases in a client who usually has normal blood pressure and is using COCs, follow closely. If any warnings (severe headaches, chest pain, blurred vision) occur on two occasions or blood pressure > 160/100, COCs should be discontinued. If COCs are discontinued, help client make an informed choice of a non-hormonal method. Tell her that high BP due to COCs usually goes away within 1 to 3 months. Take BP every month, for 3 months, to be sure it returns to normal. If it does not, refer for further evaluation.

Side Effect	Assessment	Management
Nausea/Dizziness/ Nervousness (usually improves during first 3 months)	Find out if pills are taken in morning or on an empty stomach. As appropriate: Exclude pregnancy. Rule out other causes of nausea (gall bladder disease, hepatitis).	Take with evening meal or before bedtime. If pregnant, manage as above (see Amenorrhoea). Evaluate for disease (gall bladder disease, hepatitis, gastroenteritis). Counsel that it will probably decrease with time, or switch to a lower estrogen or a progestin-only method if problem is intolerable.

Table 7-2: Other Problems (May or May Not Be Method-Related)

Problem	Assessment	Management
Acne	Ask how and how often she cleans her face. Ask if she is currently under great stress.	Acne can initially worsen with COC use, but commonly improves with long-term use. Recommend cleaning face twice a day with an astringent, like lemon, and advise to avoid heavy creams. Counsel as appropriate. If condition is not tolerable, consider another method.
Breast Fullness or Tenderness (usually improves within 3 months of starting the COCs)	Determine whether client is pregnant by history and physical exam. Determine whether the woman has breast lumps or nipple discharge suspicious for cancer. If she is breastfeeding and breasts are tender, examine for breast infection. Ask whether client notices this only at a certain time of the month.	If pregnant, treat as above for Amenorrhoea. If physical exam shows lump or discharge suspicious for cancer, refer to appropriate source for diagnosis. If malignancy is discovered, help client make an informed choice of another method. If breasts are not infected, recommend appropriate clothing for support. If breast infection present, use warm compression, advise to continue breastfeeding and give antibiotics as appropriate. Switch to a lower estrogen pill if not already on lowest estrogen COC. Advise client to avoid caffeine, chocolate, etc. If the lowest dose pill is unacceptable, and symptomatic management not helpful, help client to make an informed choice of another method.
Cholasma ("mask of pregnancy")	Look for skin diseases. Determine whether she is pregnant. Ask about other causes, e.g., use of skin lightening creams containing mercury, recent pregnancy or sunburn. If no other cause is found, ask if the client sees this as a serious problem.	Treat or refer as appropriate. Counsel on stopping creams and avoiding sun. Advise use of a sun hat. If recently pregnant, advise to wait 3 months and look for improvement. If "yes," counsel the client to choose another method.

Problem	Assessment	Management
Headaches	Are the headaches severe, frequent or associated with nausea? Has she had loss of speech, numbness, weakness or tingling, or visual changes associated with the headaches? Have the headaches become worse since she began pills? Has she ever had high blood pressure?	If not severe, frequent or associated with nausea, reassure. If "yes," discontinue COCs; help client to make an informed choice of another method. Refer for evaluation If worse on COCs, switch to another contraceptive method if no other contraindications. If no worse or better, explore cause of headaches. COCs can be continued unless high blood pressure or neurologic symptom or signs develop, or headaches worsen on COCs. Regardless of history, check the blood pressure. If elevated, see High Blood Pressure above.
Significant Unwanted Weight Gain or Weight Loss	Inquire about eating habits which might promote weight gain or weight loss. If the client denies poor eating habits, but complains of increased appetite or weight gain without apparent cause, ask if the weight gain is unacceptable. Rule out weight gain due to pregnancy.	Instruct the client in proper nutrition and exercise. Explain to the client that all hormonal contraceptives might have a slight effect on weight, but the dose of hormones in COCs is very low and should have only a modest effect. If the client is pregnant, refer her according to her pregnancy. Stop COCs.
Mood Change or Depression	Discuss changes in mood	If client thinks her depression has worsened while using COCs, help her make an informed choice of another method. If COCs have not caused depression to worsen, the pills can be continued.

There are also progestin-only pills (POPs) containing 0.075 mg of norgestrel only. They are useful for women who can't tolerate estrogen and they are useful during breastfeeding after 6 weeks postpartum. However, this type of the pill is not available at present in Nepal.

CHAPTER EIGHT

INJECTABLE CONTRACEPTIVES (DEPO-PROVERA® DMPA)

CHAPTER EIGHT

INJECTABLE CONTRACEPTIVES (DEPO-PROVERA®/DMPA)

8.1 AIM

8.1.1 Types of Injectable Available in Nepal

Currently depot-medroxyprogesterone acetate (DMPA) known as Depo-Provera® is the injectable contraceptive acceptable and available in Nepal. Depo-Provera is also available as "Sangini" in the commercial sector in Nepal.

8.1.2 Effectiveness

When Depo-Provera (150 mg) is given every 3 months the effectiveness is 99.7%. Depo-Provera is one of the most effective reversible contraceptive methods currently available.

8.1.3 Return of Fertility

When a client stops taking Depo-Provera, it may take several months for her fertility to return. This delay is usually about 7 months from the first missed injection, or 10 months from her last injection, but in rare circumstances can last as long as 12–18 months.

8.2 PREREQUISITES

8.2.1 Infection Prevention

Infection prevention guidelines must be strictly applied while following safe injection procedures (For more detail of infection prevention practices, see Chapter Three: Infection Prevention.)

8.2.2 Facilities

The minimum facility for an injectable contraceptive service are:

- A place to register the clients
- A private area for counselling and injection
- A place for disposal of used syringes, needles and other waste

8.2.3 Equipment and Supplies

For injection, essential supplies needed are disposable sterile syringes and needles, cotton, spirit and a puncture-proof container for disposal of used needles and syringes.

8.2.4 Category of Provider/Training

Providers should be health staff trained in the use of Depo-Provera. Such training should be based on the HMG/N NHTC COFP/Counselling Training Curriculum. Health staff may include physicians, nurses, paramedics and other trained health personnel (e.g., VHWs and MCHWs).

8.2.5 Record Keeping and Reporting

The provider should fill the following forms before and after providing Depo Provera:

- Master Register (HMIS No. 1) Appendix A I
- Multipurpose Contact Card (HMIS No. 2) Appendix A II
- Hormonal Family Planning Card (HMIS No. 11) Appendix A III
- Family Planning Register (HMIS No. 13) Appendix A V

The provider should ensure that the medical record forms are completed, regularly maintained and reported to the DHO/DPHO

8.3 SERVICE DELIVERY

8.3.1 COUNSELLING AND INFORMED CHOICE (For more detailed information refer to Chapter One: Counselling and Informed Choice.)

All clients must receive appropriate counselling for selecting and using the method. Encourage clients to ask all their questions so that any uncertainties and misunderstandings can be cleared up. For selecting the method, counsel about:

- Advantages and disadvantages.
- The possibility of change in menstrual bleeding patterns, including amenorrhoea and menstrual irregularity.
- Alternative family planning methods, including information on effectiveness risks and benefits, side effects and cost, as appropriate.
- Timing of injection

8.3.2 Eligibility

Indications

Depo-Provera should be provided to any women who requests it after appropriate counselling and reaching an informed decision, and who does not have any contraindication to its use.

Depo-Provera may be particularly appropriate for those who:

- Prefer a method that does not require taking contraceptive action every day or before having intercourse, or want long-term birth spacing or have the number of

children they want but do not want or cannot have a permanent method (voluntary sterilization) at this time.

- Are breastfeeding (after 6 weeks postpartum) and need a contraceptive.
- Cannot use contraceptives that contain estrogen, or have developed estrogen-related complications taking COCs.
- Want a hormonal method but cannot use COCs because they are heavy smokers (over 20 cigarettes a day), and are over 35 or have high blood pressure.

ALERT: The following conditions where there are "NO Restrictions" for Depo-Provera Use!

- **Thromboembolic disorders** (Blood clots in the leg, lungs or eyes): Superficial thrombophlebitis and varicose veins. Progestins do not contribute to blood clotting and thus may be safely used.

- **Smoking**: Progestins do not increase cardiovascular disease.

- **Vascular heart disease**: Women with pulmonary hypertension, irregular heart rhythm (fibrillation), history of subacute bacterial endocarditis (SBE) can use progestin-only methods, as progestins do not contribute to blood clotting embolism.

Precautions

- **Suspected pregnancy** by history, symptoms or signs: If the possibility of pregnancy cannot be excluded by examination, injection of Depo-Provera should be delayed until the next menstrual period. In the interim, the client should use condoms.

- Active liver disease (**jaundice**) or benign or malignant liver tumours: Depo-Provera is not recommended for clients until they have fully recovered from liver disease. It should not be used unless more appropriate methods are **not** available or acceptable.

- **Breast cancer** (Current or past with no current disease): For women with a history of breast cancer, Depo-Provera is **not** recommended.

Contraindications

None. However, no method is indicated during pregnancy and known harm to mother or foetus if Depo-Provera is used during pregnancy.

8.3.3 Clinical Assessment

Pregnancy can be excluded in most clients by history alone (refer to Chapter Two: Client Assessment). If pregnancy cannot be excluded, Depo-Provera should not be

started. Where facilities and trained staff are available, breast and pelvic exam should be provided for new Depo-Provera clients.

During the screening and physical exam, the following conditions should be looked for:

- Known or suspected pregnancy (the only absolute contraindication to Depo-Provera use)
- Unexplained vaginal bleeding
- Active liver disease (jaundice)
- Breast lumps and possible breast cancer
- Migraines
- Diabetes
- Hypertension

If none of these are found, Depo-Provera may be given. If any of these conditions are found or suspected, the health provider must carefully consider the risks and benefits of Depo-Provera use for this particular client. Refer also to Table 2–1, the Client Screening Checklist for Hormonal Methods and Contraindications and Precautions for Depo-Provera.

8.3.4 Timing of Injection

- **Injectable contraceptive should be given**:
  - Within the first 7 days of the menstrual cycle.
  - Any time during the menstrual cycle if it is reasonably sure the woman is not pregnant. (For detailed information, refer to Chapter Two: Client Assessment.) Provide 7 days of backup method if inserted after the first 7 days of the menstrual cycle.

- **Postpartum**
  - Breastfeeding mothers: If the woman is using the LAM, the first injection should be give when her menses returns or when she is no longer fully or nearly fully breastfeeding, or at 6 months postpartum, whichever comes first. If the woman is not using LAM, the injection should be started after the first 6 weeks postpartum.
  - Non-breastfeeding mothers: Immediately or within 6 weeks postpartum.
  - Immediately after complete spontaneous or induced abortion.

8.3.5 Clinical Procedure

Technique of injection

- The vial containing Depo-Provera should be carefully shaken before aspirating the material into the syringe. The exact amount of medication should be carefully drawn into the syringe (Depo-Provera 150 mg).

- Careful aseptic technique should be used (sterile syringes, needles). Otherwise a serious problem could be caused (e.g., an abscess or hepatitis).
- Aspirate before injection to ensure that the needle is not in a vessel.
- Deep intramuscular injection in the gluteal or deltoid muscles should be carried out, preferably with the client in a sitting or prone position. The injection site should not be massaged.

The clinical procedure for Depo-Provera administration is described fully in the HMG/N *Reproductive Health Clinical Protocols*, and the HMG/N *Comprehensive Family Planning and Counselling* reference manual.

8.3.6 Possible Emergency and Management

Anaphylactoid reactions may occur immediately following Depo-Provera injection. Fortunately, severe anaphylactic reactions are rare. Clients are encouraged to stay in the area for 20 minutes following an injection.

8.3.7 Client Instructions and Follow-up

Subsequent injections

Instruct the client to return for another injection every 12 weeks. Give an exact appointment date for her to return. Let the client know that it is important that she return on the date given; if she cannot return on that date it is preferable to return before that date rather than after, although the next injection can be given from 2 weeks before that date until 2 weeks after that date. This means that she can be given her next Depo-Provera injection anytime from 10 weeks to 14 weeks after her last injection.

Note: If the client returns after 14 weeks from her last injection, do not give a Depo-Provera injection unless she is currently menstruating and is within the first 7 days of her cycle, or if it reasonably sure she is not pregnant. If the Depo-Provera injection is to be delayed, give condoms or another back-up method and instruct her to return when she next menstruates.

ALERT: Conditions requiring more frequent follow-up care of Depo-Provera®

- **Diabetes Mellitus**: Diabetics who choose Depo-Provera should be followed up to be sure the disease is controlled.
- **High blood pressure (hypertension, with or without vascular problems)**: For women with BP >160/100 (moderate or severe hypertension) the benefits of using Depo-Provera generally outweigh the risks (i.e., pregnancy).
- **Headache (severe, recurrent vascular or migraine)**: Women with a history of severe vascular or migraine headaches should be carefully followed to be sure their headaches do not worsen with use of Depo-Provera.
- **Depression**: Women with a history of depression should be followed when using Depo-Provera. Help the client choose another method if depression worsens or recurs to a serious degree.

8.3.8 Side Effects and Management

Table 8-1: Side Effects and Their Management for the Use of Depo-Provera

Side Effect	Assessment	Management
Amenorrhoea (absence of vaginal bleeding or spotting)	Rule out pregnancy by checking symptoms; perform a pelvic exam (speculum and bimanual) and a pregnancy test (if indicated and available).	Periods of amenorrhoea are common with Depo-Provera users (80%). However, amenorrhoea for 6 weeks or more after a pattern of regular menses may signal pregnancy and should be evaluated. If **intrauterine pregnancy** is confirmed, counsel client and refer for appropriate care. Discontinue injections and assure her that the small dose of hormone (levonorgestrel) to which she was exposed will have no harmful effect on the foetus. If **negative pregnancy** test, but enlarged uterus, counsel client to return in 2 to 4 weeks for repeat pelvic exam and pregnancy test. If **ectopic pregnancy** is suspected, refer for complete evaluation.

Side Effect	Assessment	Management
Bleeding/Spotting (prolonged spotting or moderate bleeding) Prolonged spotting: >8 days Moderate bleeding: same as normal menses See *Clinical Protocol* 1-9 regarding Bleeding on Hormonal Contraceptives	Perform a pelvic exam (speculum and bimanual) to be sure bleeding not due to other cause (e.g., genital tract lesion such as vaginitis, cervicitis, cervical polyps or uterine fibroids). If pregnancy (intrauterine or ectopic) or incomplete abortion is suspected, examine and perform pregnancy test if indicated and available.	If abnormality of the genital tract is found, treat the problem if possible or refer for treatment. Do not discontinue Depo-Provera. Advise client to return for additional counselling after management of problem. Reassure her that light intermenstrual bleeding or spotting occurs in a large percentage of women using Depo-Provera (15–20%) during the first few months of use. It is not serious and usually does not require treatment. If haemoglobin less than 9 g/dl, hematocrit less than 27 or conjunctival pallor significant, give iron or iron folate (1 tablet daily for 1 to 3 months) and nutritional counselling. If anaemia persists, or client requests, discontinue Depo-Provera and help client choose another method. If not satisfied after counselling and reassurance, but wants to continue using Depo-Provera, give: • A cycle of COCs (30–35 mcg estrogen) or • Ibuprofen (800 mg three times daily for 5 days) If pregnancy is confirmed, see **Amenorrhoea** section in this table for management of pregnancy related conditions.
Weigh Gain or Loss (change in appetite)	Compare pre-injection weight (if known) and current weight. Rule out pregnancy as appropriate: Check that the client is eating and exercising properly	Counsel client that weight changes may occur. Review diet if weight change is excessive. If weight gain is unacceptable, help client choose another method.

Table 8-2: Other Problems (May or may not be method-related)

Problem	Assessment	Management
Breast Tenderness (mastalgia)	Rule out pregnancy. Check breasts for: • Lumps or cysts • Discharge or galactorrhea (leakage of milk-like fluid)	Refer for evaluation if abnormality present. If no abnormality, reassure. Do **not** discontinue injections unless client requests it.
Jaundice	Acute jaundice occurring after Depo-Provera injection is not method related. Rule out: • Active liver disease (hepatitis) • Gall bladder • Benign or malignant tumours	Progesterone has little effect on liver function and does not increase the risk of gall bladder disease or liver tumours. If she has hepatitis and does not want to stop using Depo-Provera, it is unlikely to worsen liver disease and is safer than pregnancy.
Nausea/dizziness or Nervousness	Rule out pregnancy by checking symptoms; perform a pelvic exam (speculum and bimanual) and pregnancy test (if indicated and available).	If pregnant, refer as above for **Amenorrhoea**. If **not** pregnant, reassure that this is not a serious problem(s) and usually disappears with time.
Excess hair growth (hirsutism), acne/dermatitis or hair loss	Review history, pre- and post-injection of Depo-Provera.	Pre-existing conditions such as increased facial or body hair might be worsened. Changes usually are not excessive, may improve over time, and **do not** require discontinuation of Depo-Provera unless client requests it after counselling.
Lower Abdominal/Pelvic Pain (with or without symptoms of pregnancy)	Take careful history, perform abdominal and pelvic (speculum and bimanual) examination. Check vital signs: • Pulse • Blood Pressure • Temperature Examine to rule out: • Ectopic pregnancy • PID • Appendicitis • Ovarian cysts Do lab tests for Hb/Hct and pregnancy test if indicated and available.	Refer immediately if the client has any of the following: • Lower abdominal tenderness • Elevated resting pulse (more than 100 BPM) • Decreased blood pressure (less than 90/60) • Elevated oral temperature (38.3° C) • Suspected/confirmed pregnancy and acute anaemia (e.g., less than 9 g/ dl Hb or less than 27% Hct)

CHAPTER NINE

SUBDERMAL IMPLANTS (NORPLANT® IMPLANTS)

CHAPTER NINE

SUBDERMAL IMPLANTS (NORPLANT®[1])

9.1 AIM

9.1.1 Types of Implants Available/Approved for Nepal

Norplant® implants are the registered trademark of the Population Council. Contraceptive subdermal implants are available in Nepal and consist of six capsules. Each capsule is 2.4 mm in diameter and 34 mm in length and contains 36 mg of levonogestrel. It protects from pregnancy for up to 7 years.

9.1.2 Effectiveness

Norplant implants are one of the most effective reversible methods, with effectiveness 99.95% within the first year of use. A failure rate of 0.2 pregnancies per 100 woman-years of use in the first and second years, and rates of 0.9, 0.5, and 1.1 in the third, fourth, and fifth years, respectively, are reported.

9.1.3 Return of Fertility

When the capsules are removed, the return of fertility is immediate; if the client does not want another pregnancy and does not want to use implants any longer, she should begin using another contraceptive method right away.

9.2 PREREQUISITES

9.2.1 Infection prevention

Because the insertion and removal of Norplant implants are minor surgical procedures, aseptic technique, including good surgical technique, must be followed to prevent infections at the incision site. For more detailed information, refer to Chapter Three: Infection Prevention.

The standard methods of insertion and removal, including the "U Technique," are contained in the *Norplant Implants Guidelines for Family Planning Service Programs* reference manual and *Norplant Implants Course Handbook: Guide for Participants*.

9.2.2 Facilities

The minimum facility for implants/removal service are:

- A place to register the clients
- A private area for consultation and counselling
- A clean private room with good light source for insertion and removal
- A handwashing facility

[1] Norplant® is the registered trademark of the Population Council.

- An autoclaving area
- A place for disposal of wastes

9.2.3 Equipment and Supplies

Refer to Appendix B I.

9.2.4 Category of Provider/Training

Providers should be health staff who have been trained in the use of Norplant implants. Such training should be based on the HMG NHTC Norplant for physicians or Norplant for nurse/paramedics training curriculum. Health staff may include physician, HA, SN, public health nurse, AHW, and ANM.

9.2.5 Record Keeping and Reporting

The provider should fill the following forms before and after providing Norplant:

- Master Register (HMIS No. 1) Appendix A I
- Multipurpose Contact Card (HMIS No. 2) Appendix A II
- Hormonal Family Planning Card (HMIS No. 11) Appendix A III
- Family Planning Register (HMIS No. 13) Appendix A V

The provider should ensure that the medical record forms are completed, regularly maintained and reported to the DHO/DPHO

9.3 SERVICE DELIVERY

9.3.1 Counselling and Informed Choice

All Norplant implants clients must receive appropriate counselling for selecting and using the method. Encourage and give client an opportunity to ask all of their questions so that any uncertainties and misunderstandings can be cleared up.

Clearly discuss the following points for selecting the method:

- Alternative family planning methods
- The physical characteristic of the implants, how they are inserted and in which part of the body, and how they should feel under the skin
- Advantages and disadvantages of Norplant implants
- When Norplant implant should be removed

After the client has chosen the implants as her method, make sure that she understands the following:

- Possible changes in her menstrual bleeding pattern
- Side effects and complications

- Importance of removal or replacement before 7 years

For more detail information refer to Chapter 1: Counselling and Informed Choice.

9.3.2 Eligibility

Indications

Norplant implants should be provided to any women who requests them after appropriate counselling and reaching an informed decision, and who does not have any contraindication to their use.

Norplant implants are particularly appropriate for those who:

- Prefer a method that does not require taking contraceptive action every day or before having intercourse
- Want long-term birth spacing or have the number of children they want but do not want or cannot have a permanent method (voluntary sterilization) at this time
- Are breastfeeding (after 6 weeks postpartum) and need a contraceptive
- Prefer not to use contraceptives that contain estrogen, or have developed estrogen-related complications while taking combined oral contraceptives (COCs)
- Want a hormonal method but cannot use COCs because they are heavy smokers (20 or more cigarettes a day), and are over 35 years old or have high blood pressure (160/90)

ALERT: conditions for which there are "NO RESTRICTIONS" for NORPLANT IMPLANTS

- Thromboembolic disorders **(e.g., blood clots in the legs, lungs or eyes), superficial thrombophlebitis and varicose veins**
- Smoking **(any age)**
- Pre-eclampsia **(history)**
- Surgery **(with or without prolonged bed rest)**
- Gall bladder disease **(symptomatic or asymptomatic)**
- Vascular heart disease **(uncomplicated and complicated)**

Precautions

- Has **suspected pregnancy** by history, symptoms or signs: If the possibility of pregnancy **cannot** be excluded by examination, insertion of Norplant implants should be delayed until the next menstrual period. In the interim, the client should use condoms.

- **Breast cancer** (Past with no current disease): For women with a history of breast cancer, Norplant implants are **not** recommended unless other more appropriate methods are not available or acceptable. There is **no** evidence that low-dose progestins cause breast cancer; however, breast cancer is a hormonally sensitive tumour.

Contraindications

If pregnancy is confirmed, the use of Norplant implant or any other contraceptive method is not appropriate.

9.3.3 Clinical Assessment

Pregnancy can be excluded in most clients by history alone (refer to Chapter Two: Client Assessment). If pregnancy cannot be excluded, Norplant implants should not be inserted. Where facilities and trained staff are available, breast and pelvic exams should be provided for new Norplant implants clients.

During the screening and physical exam, the following conditions should be looked for:

- Pregnancy known or suspected (the only absolute contraindication to Norplant implants use)
- Unexplained vaginal bleeding
- Active liver disease (jaundice)
- Breast lumps and possible breast cancer
- Migraines
- Diabetes
- Hypertension
- Current medications, especially anti-convulsants and rifampin

If none of these are found, Norplant implants may be given. If any of these conditions are found or suspected, the health provider must carefully consider the risks and benefits of Norplant implants use for this particular client. Refer to **Table 2-1** and **Section 7.3.2**.

9.3.4 Clinical Procedure

Timing of insertion

- Within the first 7 days of the menstrual cycle.

- Any time during the menstrual cycle if known that the woman is not pregnant (for detail information, refer to Chapter 2: Client Assessment) Provide 3 days of a backup method if inserted after the first 7 days of the menstrual cycle.

- Postpartum

    - Breastfeeding mothers: If the woman is using the LAM, the capsules should be inserted when her menses returns, or when she is no longer fully or nearly fully breastfeeding, or at 6 months postpartum, whichever comes first. If the woman is not using LAM, insertion should be done after the first 6 weeks postpartum.
    - Non-breastfeeding mothers: Immediately or within 6 weeks postpartum.
    - Immediately after complete spontaneous or induced abortion.

9.3.5 Client Instructions and Follow-up

Wound care

The following instructions should be given to the client regarding wound care:

- Keep the area dry and clean for at least 48 hours. The incision could become infected if the area gets wet while bathing or washing clothes.

- There may be bruising, swelling or tenderness at the insertion site for a few days. This is normal.

- Routine work can be done immediately, but do not put unusual pressure on the area for a few days.

- Leave the gauze pressure bandage in place for 3 to 5 days to avoid having people touch the area while it is still tender.

- If signs of infection occur, such as **fever, inflammation (redness with heat) at the site, or if there is persistent pain for several days**, return immediately to the clinic.

9.4 REQUIRE MORE FREQUENT FOLLOW-UP CARE

ALERT: Conditions Requiring More Frequent Follow-up Care for the Use of Norplant Implants

- **Diabetes Mellitus**: Diabetics who choose Norplant implants should be followed up to be sure the disease is controlled.
- **High blood pressure < 160/100**: Women with BP <160/100 (mild hypertension) can use Norplant implants but should be followed to be sure their hypertension is controlled**.**
- **Headache** (severe, recurrent vascular or migraine): Women with a history of severe vascular or migraine headaches should be carefully followed to be sure their headaches do not worsen with the use of Norplant implants.
- Taking drugs **(phenytoin and barbiturates—tegretol and rifampicin)** for epilepsy (seizure disorder) or tuberculosis: Clients taking drugs for these disorders should be carefully counselled about the potential reduction in the effectiveness of Norplant implants.
- **Depression**: Women with a history of depression should be followed when using Norplant implants. Help the client chose another method if depression worsens or recurs to a serious degree.

9.5 Side Effects and Management

Table 9-1: Management of Side Effects for The Use Of Norplant Implants

Side Effect	Assessment	Management
Amenorrhoea (absence of vaginal bleeding or spotting)	Rule out pregnancy by checking symptoms, perform a pelvic exam (speculum and bimanual) and a pregnancy test (if indicated and available).	Amenorrhoea occurs in about 70% of Norplant implants users. However, amenorrhoea for 6 weeks or more after a pattern of regular menses may signal pregnancy and should be evaluated. If **intrauterine pregnancy** is confirmed, counsel and refer for appropriate care. Remove all capsules and assure her that the small dose of hormone (levonorgestrel) to which she was exposed will have no harmful effect on the foetus. If **negative pregnancy** test, but enlarged uterus, counsel client to return in 2 to 4 weeks for repeat pelvic exam and pregnancy test. If **ectopic pregnancy** is suspected, refer for complete evaluation.

Side Effect	Assessment	Management
Bleeding/Spotting (Prolonged spotting or moderate bleeding) Prolonged spotting: more than 8 days Moderate bleeding: same as normal menses **See *Clinical Protocol* 1-9 regarding Bleeding on Hormonal Contraceptives**	As appropriate: Perform a pelvic exam (speculum and bimanual) to be sure bleeding is not due to other cause (e.g., genital tract lesion such as vaginitis, cervicitis, cervical polyps or uterine fibroids). If pregnancy (intrauterine or ectopic) or incomplete abortion is suspected, examine and perform pregnancy test if indicated and available.	If abnormality of the genital tract is found, treat the problem if possible or refer for treatment. Do **not** discontinue Norplant implants. Advise client to return for additional counselling after management of problem. Reassure her that light intermenstrual bleeding or spotting occurs in a large percentage of women using Norplant implants (50–80%) during the first few months of use. It is not serious and usually does not require treatment. Most women can expect their bleeding pattern to become more regular after 6–12 months. If haemoglobin less than 9 g/dl, hematocrit less than 27 or conjunctival pallor significant, give iron or iron folate (1 tablet daily for 1 to 3 months) and nutritional counselling. If anaemia persists, or client requests, discontinue Norplant implants and help client choose another method. If not satisfied after counselling and reassurance, but wants to continue using implants, give: • A cycle of COCs (30–35 mcg ethinyl estradiol) or • Ibuprofen (800 mg 3 times daily for 3 days) If pregnancy is confirmed, see **Amenorrhoea** section above for management of pregnancy related conditions.
Capsule Expulsion	Check for partial or complete expulsion of capsules.	Refer to a Norplant implants provider. Remove partially expelled capsule(s). If an area of insertion is not infected (no pain, heat and redness) replace with new capsules. If area of insertion is infected, see "Infection" below.
Infection	Check area of insertion for infection (pain, heat and redness), pus or abscess.	If infection (not abscess): • **Do not remove** capsules, and instruct client not to attempt to remove the capsules. • Cleanse with (soap and water or antiseptic). • Give appropriate oral antibiotic for 7 days. • Ask client to return after 1 week. If no improvement, remove capsules and insert a new set in the other arm or help client choose another method. Continue to treat infection with 7 additional days of antibiotics.
Headache (especially with blurred vision)	Ask if there has been a change in pattern or severity of headaches **since** beginning Norplant implants. Perform physical examination, measure blood pressure. Examine as appropriate: • Eyes (fundoscopic) • Neurologic system	If headaches are mild, treat with paracetamol and reassure. Reevaluate after 1 month if mild headaches persist. If blurred vision or vision difficulties are present, refer and/or remove implants. If headaches are severe and/or **recurrent** or blood pressure is elevated **since** starting Norplant implants, refer and/or remove implants.

Table 9-2: Other Problems (May or may not be method-related)

Problem	Assessment	Management
Breast Tenderness (mastalgia)	Rule out pregnancy. Check breasts for: • Lumps or cysts • Discharge or galactorrhea (leakage of milk-like fluid)	Refer for evaluation if abnormality present. If no abnormality, reassure. Do **not** remove implants unless client requests it.
High Blood Pressure	Previously normal BP elevated over 160/90 on 3 occasions more than 2 weeks apart or 180/105 on one occasion.	Counsel client that a mild increase in blood pressure does not require discontinuation unless client requests it.
Jaundice	Acute jaundice occurring **after** Norplant implants insertion is not method-related. Rule out: • Active liver disease (hepatitis) • Gall bladder disease • Benign or malignant tumours	Levonorgestrel has little effect on liver function and does not increase the risk of gall bladder disease or liver tumours. If she has hepatitis and does not want to stop using Norplant implants, it is unlikely to worsen liver disease and is safer than pregnancy.
Nausea/dizziness/ nervousness	Rule out pregnancy by checking symptoms; perform a pelvic exam (speculum and bimanual) and pregnancy test (if indicated and available).	If pregnant, refer as above for **Amenorrhoea.** If not pregnant, reassure that this is not a serious problem(s) and usually disappears with time.
Thromboembolic disorder (including blood clots in legs, lungs, or eyes)	Assess for **active** thromboembolic disease (severe leg pain, difficulty in breathing or seeing).	If strong evidence of blood clotting disorder, refer for complete evaluation. Low-dose progestins do not increase the risk of blood clotting problems; therefore, discontinue only at client's request.
Excess Hair Growth (hirsutism), acne/dermatitis or hair loss	Review history, pre- and post-insertion of Norplant implants.	Pre-existing conditions such as increased facial or body hair might be worsened. Changes usually are not excessive, may improve over time, and **do not** require discontinuation of Norplant implants unless client requests it after counselling.
Weight Gain or Loss (change in appetite)	Compare pre-insertion weight (if known) and current weight. Rule out pregnancy. Check that the client is eating and exercising properly.	Counsel client that normal fluctuations (increase or decrease of 2 kg) may occur over 5–7 years. Review diet if weight change is excessive. If weight gain is unacceptable, help client choose another method.

Lower Abdominal/ Pelvic Pain (with or without symptoms of pregnancy)	Take careful history, perform abdominal and pelvic (speculum and bimanual) examination. Check vital signs: • Pulse • Blood Pressure • Temperature Examine to rule out: • Ectopic pregnancy • PID • Appendicitis • Ovarian cysts Do laboratory test for Hb/Hct and pregnancy test if indicated and available.	**Refer immediately** if the client has any of the following: • Lower abdominal tenderness • Elevated resting pulse (more than 100 BPM) • Decreased blood pressure (less than 90/60) • Elevated oral temperature (38.3° C) • Suspected/confirmed pregnancy and acute anaemia (e.g., less than 9 g/ dl Hb or less than 27% Hct)

CHAPTER TEN

INTRAUTERINE DEVICES (IUD)

CHAPTER TEN

INTRAUTERINE DEVICES (IUD)

10.1 AIM

10.1.1 Type of IUD Available in Nepal

The IUD currently available in Nepal is the Copper T 380A. The Copper T 380A is shaped like a T and has copper on the stem and the arms, with a total exposed copper area of 380 square mm. It has a white string at its base, which extends through the cervix so that the IUD can be removed.

10.1.2 Effectiveness

The Cu T 380A is the most cost-effective reversible contraceptive on the market today, with effectiveness of 99.2% when used perfectly (checking strings regularly to detect expulsion).

After insertion, the effective contraceptive action lasts at least 12 years. Note that an IUD inserted into a client just before the shelf life of the packaging expires is still effective for up to 12 years.

10.1.3 Return of Fertility

Fertility returns immediately after the removal of IUD.

10.2 PREREQUISITES

10.2.1 Infection prevention

Infection prevention must be strictly followed for safe insertion and removal procedures. For more detail information, refer to Chapter 3: Infection Prevention.

10.2.2 Facilities

The minimum facility for insertion and removal of IUD are:

- A place to register the client
- A private area for consultation and counselling
- A clean, good light source, and curtained or separate area for pelvic examination, insertions and removals
- Handwashing
- A place for sterilizing equipment
- Toilets
- A recovery area with a couch

10.2.3 Equipment and Supplies

Refer to Appendix C I.

10.2.4 Category of Provider/Training

Providers should be health staff who have been trained in the use of IUD insertion and removal. Such training should be based on the HMG/N NHTC Training Curriculum. Health staff may include physician, SN and ANM. The Female Health Assistant and AHW or Community Medical Assistant also can provide service after training.

10.2.5 Record Keeping and Reporting

The provider should fill the following forms before and after providing IUD:

- Master Register (HMIS No. 1) Appendix A I
- Multipurpose Contact Card (HMIS No. 2) Appendix A II
- Non-Hormonal Family Planning Card (HMIS No. 12) Appendix A IV
- Family Planning Register (HMIS No. 13) Appendix A V

The provider should ensure that the medical record forms are completed, regularly maintained and reported to the DHO/DPHO.

10.3 SERVICE DELIVERY

10.3.1 Counselling and Informed Choice

All IUD clients must receive appropriate counselling for selecting and using the method. Review the woman's history to determine the possibility of existing contraindications to the method, such as the risk of STIs, and take this into account when providing counselling. Encourage clients to ask all of their questions so that any uncertainties and misunderstandings can be cleared up.

Before selecting the method discuss the following points:

- Advantages and disadvantages of IUD
- Alternative family planning methods
- The type of IUD inserted (a sample should be shown) and the proper time for replacement
- Importance of regular follow-up

10.3.2 ELIGIBILITY

Indications

IUD should be provided to any woman who requests it after appropriate counselling and reaching an informed decision, and who does not have any contraindication to its use.

IUD may be particularly appropriate for those who:

- Prefer a method that provides highly effective, long-term contraception, but do not want a permanent method (voluntary sterilization)

- Prefer a method that does not require taking contraceptive action daily or before sexual intercourse.

- Have one or more children

- Are breastfeeding and needs a contraceptive

- Prefer not to use a hormonal contraceptive method such as combined oral contraceptive pills, or is a heavy smoker (more than **20** cigarettes per day) who is over **35** years of age or has high blood pressure

- Have successfully used an IUD in the past

- Are at low risk of contracting a STIs (i.e., are in a mutually faithful sexual relationships)

- Are postabortion clients who do not have evidence of infection.

Precautions

- Has **suspected pregnancy** by history, symptoms or signs: If the possibility of pregnancy **cannot** be excluded by history, examination or pregnancy testing, insertion of an IUD should be delayed until the client's next menstrual period. In the interim, help the client to choose another contraceptive method, such as condoms.

- **Past History of PID**: Women with a past history of PID and no current risk for STIs can safely use an IUD, although an IUD should not be the first choice.

- Is at high risk for **STIs:** A woman who has more than one sexual partner or whose partner has more than one sexual partner should be counselled that she is at risk for STIs and that the IUD will not protect her. If she elects to use an IUD, she (or her partner) should also use condoms.

Contraindications

The contraindications for the use of IUD are:

- Known or confirmed pregnancy, or

- PID or STI currently or within the last 3 months.

- **Unexplained vaginal bleeding**: Ideally, the cause of any persistent, unexplained vaginal bleeding or spotting (e.g., between periods or after intercourse) should be determined and, if possible, treated before an IUD is inserted. Until the cause of the bleeding is determined and any serious problems treated, the client can:
  - Use another reliable method.

ALERT: Other Problems Requiring Action for The Use of IUD

- **Vaginal infection** (candidiasis or bacterial vaginosis without cervicitis): Treat and resolve infection before inserting an IUD. Give another temporary method until the infection is cleared up.

- **Severe anaemia** (i.e., haemoglobin less than 7 gm/dl or hematocrit less than 20%): Choose the IUD only if it is the best overall method for that client. If after counselling, the Copper T 380A IUD is still the client's chosen method, she should be treated with iron or iron/folate for anaemia.

- **Cervical stenosis**: Counsel the client about this problem. If indicated, refer client to a centre where cervical dilation with local anaesthesia is available if client chooses IUD.

- **Ectopic pregnancy** (history): If after counselling, the IUD is still the client's chosen method, she should be taught the warning signs for ectopic pregnancy. Women who have had prior ectopic pregnancies are at increased risk for another and should use a very effective contraceptive method, preferably one that blocks ovulation (e.g., COCs or injectables).

- **Have painful menstrual periods**: Counsel client about this to be certain she understands potential problems with having an IUD. IUD should not be the first choice.

10.3.3 Clinical Assessment

Refer to *Reproductive Health Clinical Protocols* for IUD**.**

The purpose of the health assessment is to determine the client's suitability for the use of the method. It is also an opportunity to offer other available sexual and reproductive health services as appropriate.

- **Medical/social history**: include gynaecological and obstetric history; present illness, including diabetes, anaemia or immunodepression; and history of STIs, including HIV, PID and risk factors to STI such as multiple sexual partners.
- **Physical examination**: speculum visualization of cervix and bimanual pelvic examination must always be included, and any other examination as indicated by the medical history.
- **Laboratory tests**: these are not routinely required for the use of an IUD except when indicated by medical history and physical examination.

10.3.4 Clinical Procedure

Timing of insertion of the IUD

Interval insertion

- Any time during the menstrual period (while the woman is bleeding)

- Any time during the menstrual cycle if it is known that the woman is not pregnant (for detailed information refer to Chapter 2: Client Assessment)

- **Postpartum**

    - **Breastfeeding mothers**: If the woman is using the LAM, insertion can be delayed until her menses returns, or when she is no longer fully or nearly fully breastfeeding, or at 6 months postpartum, whichever comes first. If the woman is not using LAM, or wants to use an IUD in addition, insertion can be done within 48 hours of delivery or after involution of the uterus is complete (4 weeks).

    - **Non-breastfeeding mothers**: Within 48 hours of delivery or after involution of the uterus is complete (4 weeks).

- After **spontaneous or medically induced first-trimester abortion**: An IUD may be safely inserted immediately at this time except in women with pelvic infection.

Note: Immediate and early postpartum insertion and immediate postabortion insertion should be performed only by specially trained health personnel.

Removal of IUD

If there is difficulty with removal, including breaking of the string, excessive pain, or a question of perforation or embedding of the IUD, referral to a physician in a fully equipped facility should be undertaken. The indication for removal may be medical or personal:

- **Medical**

    - Pregnancy (only if threads visible)
    - Excessive bleeding
    - Severe anaemia (haemoglobin less than 8 gm/dl or hematocrit less than 20%)
    - Unacceptable lower abdominal pain associated with menstrual cramping
    - Signs of pelvic inflammatory disease
    - Known or suspected uterine or cervical neoplasia
    - Partial expulsion
    - Menopause

- **Personal**
  - Desire for pregnancy
  - Change of method
  - No need for protection against pregnancy

10.3.5 Management of Possible Problems During Insertion and Removal

Table 10-1: Management of Problems During Insertion or Removal of IUD

Problem	Assessment	Management
Fainting (syncope); slow heart rate (bradycardia) or vasovagal episode during IUD insertion or removal	• Is woman extremely anxious? • Does she have a small uterus or cervical stenosis? (These characteristics increase risk for fainting and/or vasovagal reaction.)	• Every step of IUD insertion and removal should be done slowly and very gently, with an explanation of each step to the client. • If available, aspirin, acetaminophen or ibuprofen may reduce pain associated with IUD insertion or removal. Provide 30 minutes prior to procedure and for 24 hours afterwards. • Maintain a calm, relaxed, unhurried atmosphere and a gently reassuring approach to the client. • At the earliest sign of fainting, stop the insertion. Resume the procedure once the episode has passed and client desires.
IUD Sterile Package Damaged	Inspect package before use. Be alert for break in seal or plastic cover.	Discard and use another IUD from a sterile package.
Suspected Uterine Perforation (during uterine sounding or IUD insertion)	Client complains of suddenly significant pain during procedure.	• Stop the procedure (and remove IUD if inserted). Observe for signs of intra-abdominal bleeding (e.g., falling BP, rising pulse, severe abdominal pain, tenderness, guarding and rigidity). If intra-abdominal bleeding is suspected, stabilize (IVs) and refer (if necessary) for further evaluation and possible surgery. • If intra-abdominal bleeding not suspected, keep for observation and take BP and pulse every 15 minutes for 90 minutes. • If negative after 2 hours, discharge with instructions for warning signs, which require immediate return to clinic. Return after 1 week for checkup. • Provide backup contraceptive method and help client make an informed choice of another method.

10.3.6 Client Instructions and Follow-up:

Instruct clients on following points:

- **Checking strings**

  The client will need to check for the strings of the IUD to be sure it is in place. During the first month after insertion, she should check the strings several times. After that, she needs to check them after each menstrual period only. To check her strings the woman should:

- Wash her hands.

- Sit in a squatting position or put one foot up on a step or a ledge.

- Insert either her second or middle finder into the vagina to find the opening to the uterus (the cervix). She will know it because it feels firm, like the tip of her nose.

- Feel for the strings. If she feels the strings, it means that the IUD is correctly in place. She must never pull on the strings. This could cause the IUD to come out and could damage the cervix.

- If she cannot feel the strings, if they feel longer or shorter than normal, or if she feels the stem of the IUD protruding from the cervix, she should return to the clinic for a checkup. She should not have intercourse until the IUD is replaced unless she uses another contraceptive method.

- Since most expulsions occur during menstruation, the IUD user should check menstrual cloths, pads or tampons, as well as the toilet or latrine, during menstrual periods**.** If the device is expelled accidentally, she should return to where she received her IUD for possible insertion of another IUD. She should use another contraceptive method until her IUD is replaced.

- **Changes in the client's menstrual periods**

  For most women the first few periods will be heavier, last longer and may have more cramping. There might also be intermenstrual bleeding or spotting. This is not harmful. However, if the bleeding lasts twice as long as usual or if she uses twice as many pads, cloths or tampons, she should see a health care provider.

- **Special concerns for return visits**

  A woman should get medical help as soon as possible if she has any of the following problems:

Special Concerns For Return Visits

- P= Period late (pregnancy), abnormal spotting or bleeding.
- A= Abdominal pain, pain with intercourse, severe cramping.
- I= Infection exposure (such as gonorrhea), abnormal discharge.
- N= Not feeling well, fever, chills, especially if accompanied by lower abdominal pain.
- S= String missing, shorter or longer, or the plastic tip of the IUD can be felt when she is checking for the strings.

Also, if either the women or her husband begins having sexual relations with other partners without using condoms, this increases her risk of getting a sexually transmitted disease because IUDs do not protect against them. STIs increase the risk of pelvic inflammatory disease, which lead to cause infertility or ectopic pregnancy.

10.3.7 Side Effects and Management

Table 10-2: Management of Side Effects for The Use of IUD

Side Effect	Assessment	Management
Amenorrhoea (absence of vaginal bleeding or spotting)	Ask client • When she had her LMP • When she last felt the IUD strings • If she has symptoms of pregnancy Rule out pregnancy (intrauterine or ectopic) by checking symptoms, and performing a pelvic exam (speculum and bimanual) and a pregnancy test (if indicated and available).	If the client is over 48, amenorrhoea could be due to menopause. If pregnancy is ruled out, no treatment is required except counselling and reassurance. Explain that blood does not build up in the uterus. Advise the client to return to the IUD provider for further evaluation if amenorrhoea remains a concern. If pregnancy is less than 13 weeks (by LMP and/or exam) and strings are visible, explain that the IUD should be removed to minimize risk of pelvic infection. If client agrees, remove IUD. Advise her to return to the clinic if she has excessive bleeding, cramping, foul discharge or fever. If client is pregnant and wishes to continue pregnancy but does not want IUD removed, advise on increased risk of miscarriage (spontaneous abortion) and infection and that pregnancy should be followed closely. Do not attempt to remove IUD if: • Strings are not visible or • Pregnancy is greater than 13 weeks (by LMP and/or exam)
Irregular bleeding with or without symptoms of pregnancy	Perform abdominal and pelvic (speculum and bimanual) examination to check for infection, pelvic pain or tenderness, palpable adnexal mass or enlarged uterus (consistent with pregnancy).	**Ectopic pregnancy** must be suspected in clients with irregular bleeding and/or abdominal pain (see **Amenorrhoea and Heavy Bleeding** in this section). Refer to appropriate facility for complete evaluation.

Bleeding (heavy/prolonged) Amount: more than normal period Duration: more than 8 days	Perform pelvic examination (speculum and bimanual) to be sure that client does not have: • Intrauterine or ectopic pregnancy • Incomplete abortion • Vaginal, cervical or pelvic infection Ask how much and how long she has been bleeding. Check for signs of marked anaemia: • Pale conjunctivae or nail beds • Rapid pulse more than 100/min	**If client has had IUD less than 3 months**: • If exam is normal, reassure and give iron tablets (1 tablet daily for 1–3 months). Ask client to return in 3 months for another check. Use locally approved drugs, such as ibuprofen, during bleeding episodes, if available, to decrease bleeding (800 mg 3 times daily for 1 week). • If bimanual examination shows enlarge or irregular uterus due to fibroids, tell client of the problem and refer for evaluation. Remove the IUD if bleeding worsens and client is anaemic or requests removal, and help client select another method. **If client has had IUD more than 3 months**: If examination is normal and bleeding intervals short (less than 3 days) determine if bleeding is a problem. If not, leave the IUD in place. If the client is bothered, remove the IUD and counsel for another method.
Missing Strings	Ask the client whether she knows if the IUD has come out/been expelled. If client does not know if IUD was expelled, ask her: • When she had her LMP • When she last felt the strings • If she has any symptoms of pregnancy • If she used a backup method (e.g., condom) from the time she noticed the missing strings Rule out pregnancy by symptoms, physical examination or pregnancy test, if necessary and available. If she returns while menstruating and strings are not visible, rule out lost IUD or perforation. If she returns with delayed (more than 4 weeks) menses, check for pregnancy.	If client knows the IUD fell out, check for pregnancy. If not pregnant, insert new IUD, or provide back-up method and insert new IUD during her next period. If exam reveals ectopic pregnancy (lower abdominal pain, spotting, cramping), refer to appropriate facility for complete evaluation. • If exam reveals pregnancy, and strings are visible, see management under **Amenorrhoea**. • If exam reveals pregnancy and strings are not visible, see management under **Amenorrhoea.** If strings are not found by carefully probing the cervical canal, client should use a non-hormonal contraceptive method and return with menses or in 4 weeks if her period does not start. Strings may come down with menses. If strings are seen, reassure client that strings are present and help her feel them.
Partner Complains About Strings	Check to be sure that IUD is in place (i.e., not partially expelled)	Counsel client that one option is to cut strings even with the cervical os, and inform her that she will no longer be able to feel strings. Record in chart that strings have been cut to the level even with cervix for future removal.

Pelvic Infection Cramping accompanied by abdominal tenderness, fever, flu-like symptoms, headache, chills, nausea or vomiting, painful intercourse, palpable pelvic mass	Perform abdominal and pelvic (speculum and bimanual) examination and STI testing if available.	• If abdominal and pelvic examinations confirm uterine and/or adnexal tenderness, and/or microscopic testing supports diagnosis of PID, remove the IUD and treat with antibiotics. • If diagnosis equivocal, treat with antibiotics without removing IUD. Observe carefully for results of antibiotic treatment. • If urethritis or cervic (purulent discharge or inflamed red cervix), check gram stain of cervical discharge.
Vaginal Discharge	Check client's history for STIs and examine for vaginitis or purulent cervicitis or inflamed red cervix. Examine saline and KOH wet mounts of vaginal discharge for trichomonas, monilia (candida) and bacterial vaginosis.	Obtaining accurate history will facilitate diagnosis and treatment. If saline or KOH wet mounts are positive, treat approximately for specific organism. **If simple vaginitis, it does not require removal.** If positive for GNIDs, treat for gonorrhoea. If negative for GNIDs and purulent cervicitis or inflamed red cervix, treat for chlamydia. Obtain GC culture if available. Remove IUD if gonorrhoea or chlamydia is confirmed or strongly suspected.

CHAPTER ELEVEN

VOLUNTARY STERILIZATION (VS)

CHAPTER ELEVEN

VOLUNTARY STERILIZATION (VSC)

10.1 11.1 AIM

11.1.1 Voluntary Sterilization Procedures

- Tubal Ligation—for women
  - Minilaparotomy (interval and postpartum)
  - Laparoscopy
- No-scalpel Vasectomy (NSV)—for men

1.0.0 Effectiveness

Tubal ligation and NSV are both 99% effective, with a surgical complication rate of less than 2%. Failure usually is due to one of the following:

- Vas deferens or fallopian tube spontaneously recannalise
- Inability to complete procedure
- Incorrect surgical technique

2.0.0 Permanency

Voluntary sterilization procedures should be considered permanent (irreversible). It is possible in some cases to reverse the procedure, that is, rejoin the cut fallopian tubes (females) or the vas deferens (males). But in Nepal, the microsurgical services required to reverse VSC procedure are rare. Even when such services are available, the client may not be a proper surgical candidate or a reversal attempt may not be successful. Therefore, couples considering VSC should be certain that they do not wish to have any more children.

11.2 PREREQUISITES

Guiding principles for VSC services:

- The operating physician and staff must be trained and skilled in: the approved surgical techniques; the guidelines for conscious sedation and local anaesthesia; the management of emergencies; and standards of infection prevention practices.

- All instruments and equipment, including emergency equipment and supplies, must be in optimum working order before the start of the surgical procedure.

- Clients must be carefully counselled and screened; meet medical eligibility criteria and written informed consent must be obtained.

- Individual providers are not to exceed the following recommended number of procedures per day:

- Laparoscopy: 8 procedures per hour not exceeded 64 cases per day
- Minilaparotomy: 5 procedures per hour not exceeded 50 cases per day
- NSV: 5 procedures per hour not exceeded 50 cases per day

1.0.0 Infection Prevention

Because VSC is surgical procedure, aseptic technique including good surgical technique must be followed to prevent infection at the incision site. For more detailed information, refer to Chapter Three: Infection Prevention and Operation Theatre Technique and Management reference manuals.

11.2.2 Facility

- The facility should have sufficient size with enough rooms to accommodate VSC services.
- Proper set-up to maintain infection prevention practices includes an excellent instrument/equipment sterilization system, client flow system that maintains privacy, hygiene and asepsis, and proper lighting and privacy.

See Appendix D III VSC Site Criteria for detailed facility requirements.

11.2.3 Equipment and Supplies

See Appendix E II and F II.

11.2.4 Category of Provider/Training

Tubal Ligation
Operating theatre staff (physician and scrub nurse) to be certified in procedure by HMG NHTC. For tubal ligation, additional staff needed with skills and training to perform their job responsibilities are:

No.	Position	Function
1	Trained Physician/Surgeon	Oversee pre-operative client assessment and perform surgery
1	Staff Nurse	Client screening, ensure understanding and documentation of informed choice/informed consent, and postoperative care
1	Staff nurse	OT Management
2	ANM	Assist in OT
1	Clinic Helper	Sterilization activities
1	Community Medical Assistant (CMA)/VHW	Registration and counselling
1	Peon	Assist in cleaning instruments
1	Sweeper	Cleaning facilities
1	Electrician	For laparoscopy only

NSV

The provider should be health staff trained in voluntary sterilization procedures. Such training should be based on the HMG/N NHTC No-Scalpel Vasectomy training curriculum. Such health staff may include a physician.

The minimum number of staff required to safely conduct a vasectomy operation is as follows:

No.	Position	Function
1	Trained Doctor	Oversee preoperative assessment and perform surgery
1	HA/Sr. AHW/Nurse	Perform preoperative assessment, ensure understanding and documentation of informed choice/informed consent and assist the surgeon in OT and prepare OT
1	Clinic Helper	Work in the OT/sterilization, instrument cleaning and packing
1	CMA/ANM/VHW	Registration, counselling and postoperative cares.
1	Peon	Assist in preoperative preparation and other tasks

11.2.5 Record Keeping and Reporting

The provider should fill the following forms before and after providing VSC:

- Master Register (HMIS No. 1) Appendix A I
- Multipurpose Contact Card (HMIS No. 2) Appendix A II
- Non-Hormonal Family Planning Card (HMIS No. 12) Appendix A IV
- Sterilization Register (HMIS No. 14) Appendix A VI
- Medical Record Card -Appendix E I or Appendix F I

The provider should ensure that the medical record forms are completed, regularly maintained and reported to the DHO/DPHO.

11.3 SERVICE DELIVERY

11.3.1 Counselling and Informed Choice (For more detailed information refer to Chapter One.)

Counselling is of particular importance in programs providing VSC services, because the method is surgical and permanent. VSC involve consequences, risks and concerns that need to be discussed with each client.

- Discuss other temporary and permanent family planning methods that are available.
- The client must be counselled in a language that s/he understands. Privacy must be maintained during counselling.

- Ensure that client has decided to use the method without any coercion and incentives.
- The following information should be understood by clients:
  - Side effects for the method selected.
  - Advantages/disadvantages of the method selected.
  - Each step of the process including screening, pre-operative medications, gowning, operating theatre, postoperative pain, side effect, warning signs, recovery at home and follow-up.

The counsellor should discuss each client's feelings about ending fertility and assess the client's psychological readiness for the procedure and its consequences. Client doubts, fears or misconceptions should be identified and addressed.

Informed consent is the client's voluntary decision to undergo a sterilization procedure, in full possession and understanding of the relevant facts. In Nepal, the client's signature on an informed consent form (See Appendix D I) is the legal authorization for the procedure to be performed. Therefore service providers should ensure that client has signed the informed consent form with full understanding.

11.3.2 Eligibility

11.3.2.1 Indications

- The client seeks permanent method and wants no more children.
- The female client should be above the age of 22 years and below the age of 49 years. **However, with adequate counselling there is no age restriction.**
- There should be at least 2 (two) living children. If only 2, the age of the last child should be above 3 years. **However, with adequate counselling there is no parity or age restriction.**
- A client under the age of 18 must have signed consent of a legal guardian.
- The client or partner has a medical condition that would lead to a high-risk pregnancy or serious health problems.

11.3.2.2 Precautions for Voluntary Sterilization

The situations and conditions below require careful consideration and counselling before proceeding with provision of a permanent method.

Situational issues

If VSC is inappropriate for the reasons below, the counsellor should further assess concerns and, if appropriate, help the client choose another method.

- Desires another child
- Shows excessive interest in reversal

- Has religious beliefs that would be violated
- Disagrees with/does not want to sign informed consent
- Is under pressure from another person
- Has marital problems
- Is single without children
- Has no children

General medical issues

For the conditions below, VSC services should be delayed until specific conditions resolve. Help client choose another method for the interim.

- Acute systemic infection
- Depression: help client choose another method and refer for treatment of depression
- STI
- Uncontrolled diabetes

Female-specific medical issues

- Suspected pregnancy: rule out pregnancy prior to procedure
- Severe anaemia (Hb < 7 gm/dl, or Hct < 20%)
- Unexplained vaginal bleeding
- Severe pre-eclampsia/eclampsia

Male-specific medical issues

- Local skin or scrotal infections
- Large varicocele
- Filariasis
- Intrascrotal mass
- Inguinal hernia
- Cryptochidism

Documenting denial of voluntary sterilization

When a client is judged unsuitable for voluntary sterilization, the client record should specify the reason(s) and should describe what action was taken. These records are to be kept at the service site.

EMALE STERILIZATION: TUBAL LIGATION

1.0.0 Client Assessment

The recommended information to include in a preoperative medical evaluation of a female client is:

Demographic information

Includes client's name, address, age, spouse's name, occupation, education, number of living children and age of the youngest child.

Medical history

- History of chronic/acute conditions: active tuberculosis, heart disease, hypertension, anaemia, diabetes, bleeding disorders, convulsions, psychiatric conditions, pelvic or abdominal surgery, pelvic inflammatory disease, vaginal discharge, urinary tract infections
- Recent injuries or infections
- History of pregnancies, miscarriages, abortions, deliveries and any complications
- Date of LMP and description of menses
- Breastfeeding
- Family planning method use, side effects, reason for discontinuation
- Allergies to medication

Physical examination

The physical examination should include the following:

- Weight
- Temperature
- Blood pressure
- Pulse
- Auscultation of heart and lungs
- Abdominal examination
- Pelvic exam—speculum and bimanual,
- Pregnancy test if LMP and pelvic exam is suggestive of pregnancy
- Evaluation of the client's nutritional status
- Examination of the local operative area
- Other examinations as indicated by the medical history

Laboratory investigations

- Exam for haemoglobin, urinalysis for sugar and protein should be performed on all VSC clients. Haemoglobin 7 gm/dl and above (or Hb 20% and above) is acceptable.
- Chest x-ray, pregnancy test should be conducted if indicated.
- For postpartum VSC procedure, haemoglobin is required if there is bleeding after delivery.

Conditions to be reviewed by physician

When on exam/history the women have abnormal finding(s), it must be reported to the physician, and the physician will examine the client and determine whether the procedure can be pursued. Below are conditions to be reviewed by the physician:

For all clients:

- A systemic or localized infection
- Heart disease
- Irregular pulse
- Respiratory problems
- Hypertension (should be controlled before surgery)
- Mass in the pelvic area
- Diabetes (should be controlled before surgery)
- Bleeding disorders

For postpartum client:

- Puerperal fever
- Prolonged rupture of membranes
- Hypertensive states, including pre-eclampsia and eclampsia
- Antepartum or postpartum haemorrhage
- Major trauma to the genital tract
- History of postpartum psychosis

Clients who have conditions that make the VSC procedure difficult or increase the risks should have their surgery performed by a highly skilled provider in a well-equipped facility, where general anaesthesia and other special requirements are available. The conditions include:

- Pelvic or abdominal adhesions due to previous surgery
- Obesity
- Abdominal wall or umbilical hernia (for immediate postpartum and laparoscopic procedures)
- Severe organ disease of heart, lung, kidney, liver
- Coagulation disorders

- Known pelvic TB

11.4 CLINICAL PROCEDURE

Timing of procedure

- Interval VSC may be performed: During menstruation, or within 5 days of LMP or any time in the menstrual cycle if client is known to be not pregnant. (See Chapter 2: Client Assessment for pregnancy screening.)
- Postpartum VSC may be performed within 48 hours of delivery, or 6 weeks after delivery.

1.0 PREOPERATIVE MEDICATION AND ANESTHESIA

Premedication serves to reduce fear and anxiety. It can provide analgesia, prevent postoperative nausea and vomiting, and induce amnesia. The goals of anaesthesia are to minimize psychological and emotional distress and trauma in the client and free her from pain and discomfort.

Local anaesthesia with sedation (so-called "modified local") is safer than either general or conductive (spinal/epidural) anaesthesia, especially when these procedures are being performed in an outpatient setting. Use of general anaesthesia is not routinely recommended for VSC procedures.

Conscious sedation with local anaesthesia

When performing minilaparotomy the operating physician should give conscious sedation with local anaesthesia and choose either Option 1 or Option 2, **not both**.

MINILAPAROTOMY
Conscious Sedation with Local Anaesthesia: Option 1
Diazepam 5 mg orally for client <35 kg weight or **Diazepam 10 mg** orally for client ≥ 35 kg by weight Give 45 minutes before the operation
Pethidine 25 mg IV with **Phenergen 12.5 mg IV with** **Atropine 0.6 mg IV** To be administered together intravenously in operating theatre just before procedure with monitoring of vital signs every 5 minutes.
Xylocaine 1% 10–20 ml. Local infiltration to the skin and wait 1–2 minutes after infiltration to begin procedure.
Conscious Sedation with Local Anaesthesia: Option 2
Diazepam 5 mg orally for client <35 kg weight or **Diazepam 10 mg** orally for client ≥ 35 kg by weight Give 45 minutes before the operation.

Pentazocine 30 mg IV with **Atropine 0.6 mg IV (optional)** To be administered together intravenously in OT just before procedure with monitoring of vital signs every 5 minutes
Xylocaine 1% 10–20 ml. Local infiltration to the skin and wait 1–2 minutes after infiltration to begin procedure.

The use of IV diazepam for premedication is not recommended.

LAPAROSCOPY
Diazepam 10 mg orally 45 minutes before the operation
Local Anaesthetic: **Xylocaine 1% 5-10 ml**. Locally at different anatomical planes

Monitoring client during procedure for clients administered conscious sedation

Monitoring and recording of vital signs must take place before, during and after the operation until the client has fully recovered.

Preoperative: Blood pressure, pulse and respiration should be monitored and recorded before and after the preoperative dose of sedative is given. This provides the baseline data for the client.

Intraoperative: To assess the status of analgesia, a staff member should converse with the client continuously. During surgery, the medical team should monitor and record blood pressure, pulse and respiration at least every 5 minutes.

Postoperative: Blood pressure, pulse and respiration must be monitored and recorded at least every 15 minutes until stable (they have returned to preoperative levels). Under no circumstances should the client be left alone. The client must be observed constantly during the postoperative period. Once the client is stable, vital signs should be monitored once every hour until she is fully awake.

Clinical staff should be observant for the following signs of distress:

- Excessive somnolence
- Breathing rate of less than 10 per minute
- Hyperventilation
- Systolic blood pressure less than 90 mm Hg
- Rapid (over 100) or weak pulse
- Pallor or cyanosis

For further information about preoperative monitoring, refer to the *Operating Theatre Technique and Management* reference manual.

11.6 MANAGEMENT OF COMPLICATIONS

Anaesthesia complications

Major complications may occur with general and local anaesthesia for both minilaparotomy and laparoscopy. Serious complications are likely to occur as a result of overdose or improper administration of anaesthesia. Inadequate monitoring is often a factor when a complication has become serious before it is recognized. Refer to the *Management of Emergencies in Family Planning Services in Nepal* reference manual.

Surgical emergencies

The surgical team should manage surgical emergencies at the operative site in accordance with the techniques outlined in the *Management of Emergencies in Family Planning Services in Nepal* reference manual.

Table 11-1: Management of Complications During Tubal Ligation

Complications	Assessment	Management
Wound Infection	Confirm presence of infection or abscess.	If skin infection is present, treat with Amoxicillin/Cloxacillin 500 mg 8 hourly for 5 days. If abscess is present, drain and treat as indicated.
Postoperative Fever	Determine source of infection.	Treat infection based on findings.
Bladder, intestinal injuries (rare)	Determine presence of hematuria, other signs of internal injury.	Manage as outlined in the *Management of Emergencies in Family Planning Services in Nepal* reference manual.
Haematoma (subcutaneous)	Determine presence of infection or abscess.	Apply warm, moist packs to site. Observe—usually will resolve over time but may require drainage if extensive.
Shock or acute (very rare) distress	Check for increased respiration and pulse, decreased blood pressure, evidence of hemodynamic instability.	Manage as outlined in the *Management of Emergencies in Family Planning Services in Nepal* reference manual.
Pain at incision site	Determine presence of infection or abscess.	Treat based on findings.
Superficial Bleeding (skin edges or subcutaneously)	Determine presence of infection or abscess	Treat based on findings.
Intraoperative Haemorrhage (injury to mesosalphinx)	Determine presence of injury to mesosalphinx	Manage as outlined in the *Management of Emergencies in Family Planning Services* reference manual.

1.0.0 Preoperative, Postoperative and Discharge Care and Client Information

Preoperative client information

At community level

Community health staff should inform the clients to prepare for surgery by:

- Receiving counselling about family planning procedures and specifics about VSC
- Bathing, wearing clean and loose clothes
- Fasting for 8 hours before surgery and taking no medications for 24 hours prior to surgery unless prescribed by a physician
- Being accompanied to VSC site and home after the procedure

At VSC Site:
Counsellor and VSC staff to inform the client of the following:

- The steps of the operation, including information on sedation/anaesthesia, screening, lab tests, what to expect in operating theatre, expectations about pain/discomfort, emptying bladder before surgery
- Removal of jewellery, nail polish, hairpins, eye glasses and dentures before surgery

Post-operative client information

- Medications and dosages
- Discharge information—resumption of activities, wound care and warning signs (signs of infection, bleeding pain), referral site for complications
- Timing of follow-up visit
- Printed postoperative information to be given on discharge

Post-operative danger signs

- Fever (greater than 100.4°F/38°C)
- Dizziness with fainting
- Abdominal pain that is persistent or increasing
- Bleeding or fluid coming from the incision

Postoperative care

VSC staff should monitor the client's vital signs every 15 minutes after surgery until she is stable. Discharge may occur after 2 hours post-procedure when the client's vital signs are stable, she has eaten, has passed urine, is able to dress herself and is ambulatory.

Required client discharge instructions are outlined in Appendix E III. For additional information on postoperative care, refer to the *Minilaparotomy Under Local Anaesthesia for Nepal* reference manual.

Postoperative medications

- Analgesics tablets for 3 days
- **Antibiotics are not recommended for routine use with minilaparotomy or laparoscopy.** Antibiotics should only be given if there is bowel injury, documented infection or severe breach in infection prevention practices/aseptic technique.

Post-procedure follow-up

The follow-up visit is to take place within 7 days of surgery. The client should return to the site where the procedure was conducted or to a referral site as instructed by the discharge staff.

MALE STERILIZATION (VASECTOMY)

11.7 CLIENT ASSESSMENT

Preoperative Assessment

The recommended information to include in a preoperative medical evaluation of a male client is:

Demographic information

Includes client's name, address, age, marital status, if married, spouse's name, occupation, education, number of living children, and age of the youngest child

Medical history

The medical history should record any of the following:

- Respiratory problems (e.g., asthma)
- Heart disease
- Diabetes
- Bleeding disorders
- Convulsions
- Psychiatric conditions
- Scrotal or inguinal surgery
- Genitourinary infections
- Sexual impairment and scrotal abnormalities
- Allergies to medications
- Addictions
- History of recent trauma
- Current medications

Physical examination

The physical examination should include the following:

- Blood pressure
- Pulse
- Examination of the local operative area
- Other examinations as indicated by the medical history

The physical examination is part of the medical screening, not part of the surgical procedure. The examination should be done before the client has received anaesthesia for surgery.

Laboratory examination

Routine laboratory tests are not necessary.

Conditions to be reviewed by physician

The following localized conditions can make the operation difficult or increase risks:

- Large varicocele
- Hydrocele
- Inguinal hernia
- Filariasis (elephantiasis)
- Scar tissue
- Cryptorchidism
- Previous scrotal surgery
- Intrascrotal mass

Certain systemic disorders require special precautions and possible hospitalisation for the procedure, including the following:

- Severe anaemia (Hb less than 7 g/dl, or Hct less than 20%)
- Bleeding disorders
- Diabetes (should be controlled before surgery)
- Heart disease

In cases where there is increased risk, the physician and the client must weigh the risks of the procedure against its benefits.

Clinical procedure

11.7.1 Timing of Procedure

Male clients with no contraindications should be offered surgery.

11.7.2 Preoperative Medication and Anaesthesia

Premedication for vasectomy clients should be discouraged. However, if the client appears to need sedation, he may be given diazepam 5–10 mg orally 45–60 minutes before the operation. Vasectomy should be performed using local anaesthesia with 1% xylocaine (with epinephrine).

11.7.3 Conventional and No-Scalpel Techniques

Two techniques are in practice in Nepal for the surgical approach of the procedure. The **conventional vasectomy** technique involves making a small midline incision in the scrotum and requires considerable blunt and sharp surgical dissection to deliver the vas deferens. The **NSV** technique uses two specially designed but simple instruments to puncture the scrotum to access the vas. The instruments are:

- NSV ringed forceps (3.0 to 4.0 mm diameter ring)
- NSV dissecting forceps

After isolating the vas through the skin with the ringed forceps, the dissecting forceps is used to puncture the scrotal skin (as opposed to an incision) to access and deliver the vas. The NSV technique does not require skin suture.

For detailed information refer to the *No-Scalpel Vasectomy* reference manual.

Vas occlusion methods

In Nepal the preferred method is to divide the vas, remove a small segment and ligate both ends with nonabsorbable sutures. Absorbable suture material can also be used; however, bipolar cautery with a needle electrode is required. Cautery may be impractical in many service centres.

Refer to the *No-Scalpel Vasectomy* reference manual.

Monitoring client during procedure

The client may be monitored by observing his general condition and state of consciousness during and after surgery. Vital signs should be monitored if general anaesthesia or conscience sedation is used.

11.8 MANAGEMENT OF COMPLICATIONS

Anaesthesia complications

Use of general anaesthesia significantly and unnecessarily increases the risks of major complications associated with vasectomy and is not recommended except in certain complicated procedures. For local anaesthesia, when intravascular injections are avoided and the recommended doses of xylocaine are not exceeded, toxic reactions are rare. However, toxic reactions may be manifested as convulsions requiring assisted ventilation and anticonvulsants (e.g., diazepam).

Surgical complaints

The most common complaints following vasectomy are swelling of scrotal tissue, bruising and pain. While these symptoms generally disappear without treatment, ice packs, scrotal support and simple analgesics provide relief. The incidence of these symptoms can be reduced by using gentle operating technique and checking for bleeding.

Complications, such as haematomas and infections, are uncommon. Haematomas can be minimized by ensuring meticulous haemostasis. Also, clients must be careful not to strain the scrotal sac for several days after surgery. Infections can be minimized through the use of meticulous aseptic technique and good postoperative care. There is no evidence that routine prophylactic use of antibiotics is beneficial if asepsis is adequate.

Surgical emergencies

The surgical team should manage surgical emergencies in accordance with the techniques outlined in the *Management of Emergencies in Family Planning Services in Nepal* reference manual.

Table 11-2: Management of Complications of Vasectomy

Complication	Assessment	Management
Superficial Bleeding (skin edges or subcutaneously)	Apply secure pressure over wound. Then check if bleeding persists.	**Postoperatively** Place secure pressure dressing on wound. If bleeding persists, reopen wound under local anaesthesia, identify the bleeders and ligate them with sterile suture.
Vasovagal Reaction	Check vital signs.	Reassure client. Elevate client's lower extremities. Provide additional local anaesthesia if needed.
Wound Infection	Confirm presence of infection or abscess.	If skin infection is present, treat with amoxillin, cotrimoxazole or erythromycin. If abscess is present, drain and treat as indicated.
Postoperative Fever	Determine source of infection.	Treat infection based on findings.
Haematoma	Confirm presence of infection or abscess.	Apply warm, moist packs to site. Observe; if extensive may require drainage. If infected, treat as indicated.
Unusually severe **pain** at incision site	Determine presence of infection or abscess.	Treatment based on findings (e.g., moist heat, analgesics).
Vaso-cutaneous Sinus (Discharging Scrotal Sinus)	Confirm the presence of discharging sinus and any concomitant infection.	If infection—treat before referring for release operation. Amoxicillin 250 mg and cloxacillin 250 mg given together 6 hourly for 7 days.

Complication	Assessment	Management
Sperm Granuloma	Confirm presence of nodule. Determine if infection is present.	Asymptomatic: no treatment. Pain: analgesic if persistent pain. Evacuate cyst, cut and seal ¼" towards the testis.
Chronic Pain	History of reaction of unilateral or bilateral scrotal pain.	Non-steroidal analgesic.
Pregnancy of the Partner	Determine if pregnant and age of gestation. Determine period elapsed since the procedure. Assess for azospermia by semen analysis.	Refer for appropriate care. If more than 3 months since NSV and semen analysis is positive for sperm, discuss repeat vasectomy for man, if necessary, or possibly tubal ligation for partner.
Vasectomy Failure	Repeat to confirm positive semen analysis.	Explain how failure happened. Refer to repeat procedure.

1.0 PREOPERATIVE, POSTOPERATIVE AND DISCHARGE CARE AND CLIENT INFORMATION

Pre-operative client information

- **At community level**:
  Community health staff to inform the clients to prepare for surgery by:
  - Receiving counselling about family planning procedures and specifics about VSC
  - Bathing, wearing clean clothes
  - Refraining from alcohol use on day of procedure

- **At VSC Site**:
  Health staff and counsellor should explain in detail the following before the client undergoes the procedure:
  - the steps of the operation, including information on local anaesthesia and screening
  - what to expect in operating theatre
  - expectations about pain/discomfort

Post-operative client information

Required client discharge instructions are outlined in Appendix F III.
The following points must be explained to all clients:

- **Post-Vasectomy Contraception**: Some form of contraception, either male or female, is required for 20 ejaculations (or for 3 months, whichever occurs first). When facilities are available, a semen examination should be performed and azospermia established before use of temporary methods of contraception is stopped. In situations where it is not possible for the man to return for investigations, or facilities for doing semen examination are not available, the health care worker should provide the client with 25 condoms, and explain how to use them.

- **General Discharge information**: Resumption of activities, wound care and warning signs (signs of infection, bleeding, pain), medications and dosages, referral site for complications, timing of follow-up visit, printed post-operative information should be given on discharge.

Postoperative danger signs

- Fever (greater than 38°C or 100.4°F)
- Dizziness with fainting
- Persistent or increasing scrotal pain and/or swelling
- Bleeding or fluid coming from the incision

Post-operative care

Clients may be discharged after 30 minutes if stable without abnormal findings. If sedation has been used, client must be ambulatory, alert and oriented with normal vital signs. Before the client is discharged, a trained staff member should repeat and verify client's understanding of discharge instructions.

MOBILE VSC SERVICES

1.0 AIM

Types of mobile services available

High quality voluntary surgical contraception services should be available and accessible to all people, regardless of where they live. Because mobile services are usually delivered far from comprehensive emergency facilities, quality standards in these settings should be maintained as they are in permanent facilities.

Types

- A trained surgical team from outside the district travels to district health care facilities that do not offer voluntary surgical contraception to their clients. The team brings with it any equipment and supplies that are unavailable at the local sites.
- A trained surgical team travels from the district centre to areas that do not have voluntary surgical contraceptive services and performs surgery in temporary medical settings, such as schools and community centres. While the team brings with it almost all necessary equipment and supplies it also uses tables, lamps and other items available at the local sites.

11.10 PREREQUISITES

11.11.1 Personnel

Mobile teams must be staffed by trained, skilled and experienced personnel. Because a mobile team often does not have ready access to the backup emergency facilities available in most urban areas, the team's personnel must be skilled at recognizing problems promptly and managing them immediately.

Sometimes mobile teams go into the field sporadically, perhaps only a few weeks or months out of a year. If this is the case, members of the surgical team may need practice or retraining between their trips, especially if they do not routinely perform voluntary surgical contraception year round. Surgical skills diminish if they are not used.

Cases should not exceed 50 vasectomy, 50 minilaparotomy or 64 laparoscopy procedures per day.

11.11.2 Equipment and Supplies

Mobile teams must go into the field with all the supplies and equipment needed to manage surgical emergencies. In addition, they should have formal relationships with established medical facilities in the areas where they work. In this way, clients who need continued medical treatment after emergencies will have a way to receive it. The local backup facilities must have the supplies, equipment and trained staff required to handle complications following voluntary surgical contraception (See Appendix D II) for emergency drugs and equipment). For more information, refer to the *Management of Emergencies in Family Planning Services in Nepal* reference manual.

11.12 STANDARD OF SERVICES

All VSC standards outlined in this chapter apply to both mobile and static service sites.

CHPATER TWELVE

POSTPARTUM CONTRACEPTION AND LACTATIONAL AMENORRHEA METHOD (LAM)

CHAPTER TWELVE

POSTPARTUM CONTRACEPTION AND LACTATIONAL AMENORRHOEA METHOD (LAM)

12.1 AIM

All postpartum women should be counselled regarding family planning and provided with the method of their choice prior to discharge from the birthing facility. While all methods of contraception are appropriate for postpartum women, the time for starting each method depends on a woman's breastfeeding status.

- The client should be given instructions on how to use the method, or when to return to initiate the method.
- When appropriate, the client should be given the selected method prior to leaving the facility, rather than referring the client to an outpatient department or other clinic to obtain services.
- Providers who perform outreach services to women who have had home births should carry with them a supply of family planning methods in order to provide these methods to women who choose them.
- Facilities offering postpartum tubal ligation or postplacental/immediate postpartum IUD insertion require special training and equipment for these services.

12.2 COUNSELLING POSTPARTUM WOMEN

Contraceptive counselling and service provision should be part of:

- Immediate postpartum care for hospital-based birthing services
- Initial and follow-up visits to postpartum women during outreach services
- Routine postpartum services offered to women in the first 6 weeks following childbirth

It is best if counselling for postpartum contraception begins in the antenatal period.

Refer to the *National Maternity Care Guidelines* for additional information on the care of postpartum women.

The following guidelines for counselling postpartum women have been adapted from the International Planned Parenthood Federation (IPPF):

- Encourage full breastfeeding.
- Do not recommend that clients discontinue breastfeeding to begin use of a contraceptive method.
- Counsel clients to choose a contraceptive method that does not adversely affect breastfeeding or the health of the infant.

Refer to Chapter 1: Counselling and Informed Choice for the general principles of counselling, informed choice and client provider interaction.

12.3 POSTPARTUM TEMPORARY INFERTILITY

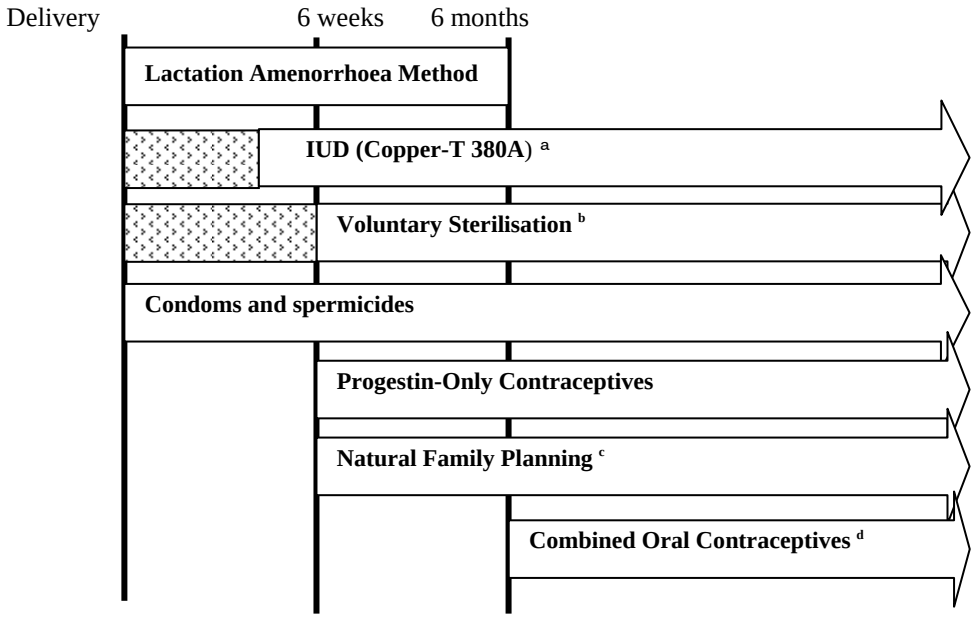
The period of infertility for **breastfeeding** mothers is longer than for non-breastfeeding mothers, because suckling blocks ovulation. The return of fertility, however, is not predictable (conception can occur before the woman has signs or symptoms of the first menses). The period of infertility following delivery in **non-breastfeeding** women is usually around 6 weeks.

12.4 CONTRACEPTION FOR BREASTFEEDING WOMEN

Breastfeeding women need contraceptive methods before or at the time fertility recovers during lactation, depending on personal and social circumstances. Contraceptives provided for breastfeeding mothers must not affect lactation and health and must be effective and safe.

Breastfeeding women do not need additional contraception for at least 6 weeks postpartum, and for up to 6 months if they are using the LAM. **Figure 12-1** shows the recommended time of starting contraception for breastfeeding women. Breastfeeding women deciding to use contraception other than LAM should be counselled about the potential effects of some contraceptives on breastfeeding. COCs are considered to be the method of last choice for breastfeeding women before 6 months postpartum because they can decrease breast milk production.

Figure 12-1 Recommended Time To Start For Breastfeeding Women



[a] If delivery is in a hospital or other health care facility, immediate postplacental or postpartum (less than 48 hours) IUD insertion is appropriate under certain circumstances (i.e., with adequate counselling and a specially trained service provider).

[b] Vasectomy can be performed at any time. Tubal occlusion may be performed immediately postpartum or within 48 hours after delivery.

[c] NFP may be harder for breastfeeding couples to use because reduced ovarian function makes fertility signs (e.g., mucus change, basal body temperature) more difficult to interpret. As a result, NFP can require prolonged periods of abstinence during breastfeeding.

[d] During the first 6 months postpartum, COCs may affect the quantity of breast milk. If a mother is breastfeeding but not using LAM, she may start COCs as soon as 6 weeks postpartum if other methods are not available or acceptable.

Adapted from : Family Health International 1994

12.5 THE LACTATIONAL AMENORRHOEA METHOD (LAM)

12.5.1 AIM

Breastfeeding has been internationally recognized as an effective, temporary contraceptive. The use of LAM enables both mother and infant to take full advantage of the numerous other benefits of breastfeeding, including longer birth intervals and the healthiest source of nutrition for infants. Women who choose LAM for contraception should be seen again 5 months postpartum to help them choose another method if desired.

12.5.2 Effectiveness

LAM provides more than 98% effectiveness for women who satisfy these three major conditions:

- are fully breastfeeding[1]
- have not had return of menses[2], and
- are less than 6 months postpartum.

12.5.3 Return of Fertility

When the baby sucks on the mother's nipples it causes a surge in prolactin in the mother's blood, which inhibits ovulation. Ovulation remains disrupted or suppressed, as long as the frequency, duration and intensity of suckling are high. Ovulation in a lactating woman often naturally resumes around 6 months postpartum.

12.5.4 SERVICE DELIVERY

12.5.5 Counselling

The LAM can be easily understood by the mother if the time is taken to explain it in a language she understands, and her concerns and questions are addressed. The desired outcome is a woman who:

- clearly understands the three major conditions which make LAM effective,
- knows what optimal breastfeeding practices are and when to stop using LAM and adopt another contraceptive method,
- knows what contraceptive method she wants to use that is compatible with breastfeeding, and
- knows that condoms should be used if there is a risk of STI/HIV.

Counselling should include the following:

- Begin immediately to obtain the benefit of colostrum

[1] Baby fed on demand, more than 6 times per day/night without supplementation (baby's diet is 90% breast milk).
[2] Spotting that occurs during the first 56 days is not considered as menses.

- Feed on demand, at least every 4 hours in day, every 6 hours at night
- Fully breastfeed for 6 months (baby's diet is more than 90% breast milk)
- Encourage nutritional diet for mother
- Continue to breastfeed as long as possible (2 years or more)
- Initiate an alternative contraception method before 6 months postpartum in women desiring continued contraception

When to stop using LAM as the sole contraceptive method:

- Baby reaches 6 months
- Menses returns
- Baby receiving supplemental feedings

Discuss complementary family planning methods for lactating mother:

- Refer to **Table 12-2** in this chapter for description of other methods for lactating women.
- Offer client a back-up method before she no longer meets the LAM criteria, so she can be fully protected before she is at risk for pregnancy.
- Counsel the client that lubricated condoms can help with vaginal dryness associated with breastfeeding. The client will then be protected until she can visit the family planning clinic for help in choosing a different method if desired.

12.5.6 Eligibility

Indications

For mothers who wish to use LAM as a contraceptive, a central consideration must be that breastfeeding needs to be done "fully or nearly fully." This means that the principal source of nutrition for an infant comes from breast milk:

- intervals between feedings should not exceed 4 hours during the day and 6 hours during the night,
- feedings is on demand more than 6 times per 24 hours, and
- supplementation should not exceed 10% of all feeding episodes.

If a mother cannot fully or nearly fully breastfeed, then another method of contraception must be used. A physical exam or laboratory investigation is not necessary.

12.5.7 Contraindications

Table 12-1: Contraindications for The Use of LAM

Condition	Precaution	Rationale
Has resumed her menses.	Counsel about need for another method.	Menses indicates resumption of ovulation and the likelihood of pregnancy occurring if another contraceptive method not used. Of the three LAM criteria, the return of menses is the most important indication of fertility return.
Baby suckles infrequently, (less than six to ten times a day on both breasts) or her baby sleeps through the night.	Counsel about need for another method.	Decreased breastfeeding frequently allows the pituitary ovarian axis to recover from lactational suppression and ovulation resumes.
Has added regular supplemental foods or liquids to her baby's diet. **NOTE**: "Supplemental" does not include tiny amounts of ritual or medicinal liquids or food; "supplemental" refers to liquid or food, which substitutes for a breastfeed.	Counsel about need for another method.	Decreased breastfeeding frequently allows the pituitary ovarian axis to recover from lactational suppression and ovulation resumes.
Baby is 6 months old or older.	Counsel about need for another method.	After 6 months, the likelihood that breastfeeding alone will effectively prevent pregnancy is reduced. This is true because breastfeeding frequently is decreased due to regular supplementation of the baby's diet. (See above.)

12.5.8 Risk of Exposure to STIs, Including HIV/HBV

Clients should use condoms with or without spermicides in addition to breastfeeding if there is any chance that she or her partner is at risk for STIs, including HIV/HBV. A client should be encouraged to seek treatment should she ever feel that she or her partner is infected with a STI. Refer to Chapter Fourteen: Contraception and STI.

If mother is HIV-positive, there is a 14–29% chance that HIV will be passed to the infant during birth or during the year following. Although HIV 1 can be transmitted to the infant through breast milk, it is important that in resource poor settings the risks and benefits of breastfeeding be taken into consideration. The UNAIDS recommendation on breastfeeding by HIV 1 seropositive women in resource-poor setting is that women be encouraged to make an informed decision about infant feeding (i.e., consideration of the risks and benefits be individualized for each woman).

12.6 Contraception for Non-Breastfeeding Women

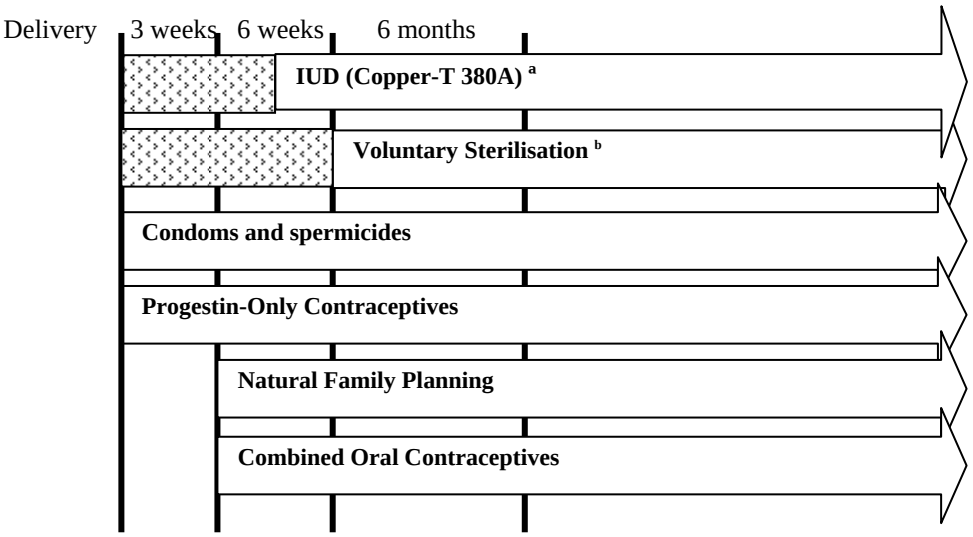
Although most non-breastfeeding women will resume menstrual cycles within 4 to 6 weeks after delivery, only about one-third of first cycles will be ovulatory and even

fewer will result in pregnancy. In order to avoid all risk of pregnancy, however, contraception should be started at the appropriate time.

- Barriers, spermicides, and withdrawal with the resumption of sexual intercourse following delivery
- Hormonals, IUDs or VSC—BEFORE the resumption of sexual intercourse following the delivery.

Due to pregnancy-induced risks of possible blood clotting problems (elevated coagulation factors) present until 3 weeks postpartum, COCs **should not** be started before that time. On the other hand, POCs can be started immediately postpartum because they do not increase the risk of blood clotting problems. **Figure 12-2** shows the recommended time of starting contraception for non-breastfeeding women.

Figure 12-2: Recommended Time To Start For Non-Breastfeeding Women



a If delivery is in a hospital or other health care facility, immediate postplacental or postpartum (less than 48 hours) IUD insertion is appropriate under certain circumstances (i.e., with adequate counselling and a specially trained service provider).

b Vasectomy can be performed at any time. Tubal occlusion may be performed immediately postpartum or within 48 hours after delivery.

Adapted from: Family Health International 1994

Table 12-2: Contraceptive Method Information for the Postpartum Period

Method	Timing	Characteristics	Remarks
Lactational Amenorrhoea Method (LAM)	Should begin breastfeeding immediately after delivery. Highly effective for up to 6 months if fully breastfeeding and amenorrheic.	Considerable health benefits for both mother and infant. Gives time to choose and prepare for other contraceptive methods.	For greatest effectiveness, must be fully breastfeeding.

COCs (Also see chapter on **Combined Oral Contraceptives**)	If breastfeeding, COCs: Should not be used during the 6–8 weeks postpartum. Should be avoided from 6 weeks to 6 months postpartum unless other more appropriate methods are not available or acceptable. If not breastfeeding, COCs can be started after 3 weeks postpartum.	During the first 6–8 weeks postpartum, COCs **decrease** the amount of breastmilk. (This effect may continue for up to 6 months). During the 3 weeks postpartum, the estrogen in COCs slightly increase the risk of blood clotting problems. If client has resumed menses and sexual activity, start COCs only if reasonably sure she is not pregnant.	COCs should be the **last choice** for breastfeeding women less than 6 months postpartum. COCs may be given for women who were pre-eclamptic or had hypertension during pregnancy as long as BP is in normal range when starting COCs. There is no increased risk of blood clotting beyond the 3rd week postpartum.
POCs (implants, PICs and POPs) (Also see chapter on **Subdermal Norplant Implants and Depo-Provera**)	Before 6 weeks postpartum, POCs are not the method of first choice. If using LAM, POCs may be delayed until 6 months postpartum. If not breastfeeding, can be started immediately. If not breastfeeding and more than 6 weeks postpartum or already menstruating, start POCs only if pregnancy can be ruled out.	During the first 6 weeks postpartum, progestin. No effect on quantity of breast milk.	Irregular bleeding may occur with POC use, even in lactating women.
IUDs (Copper T 380A) (Also see chapter on **IUDs**)	May be inserted immediately postplacental pregnancy, after caesarean section or postpartum (within 48 hours of delivery).	No effect on quantity of breast milk. Fewer postinsertion side effects (bleeding, pain) when IUD inserted in breastfeeding women.	Requires trained provider for insertion. Client should be counselled and screened during prenatal period for postplacental pregnancy insertion. First year IUD removal rates are lower among breastfeeding women. Spontaneous expulsion rate higher (6–10%) than for interval insertion (lowest rates if inserted high in fundus within 10 minutes after placenta delivered).

Condoms and **Spermicides** (foam, cream, tablets) (Also see chapter on **Barrier Methods and Withdrawal**)	May be used any time postpartum.	No effect on quantity of breast milk. Useful as interim method if initiation of another chosen method must be postponed.	
Natural Family Planning (Also see chapter on **LAM and Postpartum Contraception**)	Not recommended until resumption of regular menses. Client may begin charting at 6 weeks postpartum but should continue to use LAM.	No effect on quantity of breast milk or health of infant. Requires a high degree of couple motivation.	Cervical mucus difficult to "read" until menses have resumed and are regular (ovulatory). Basal body temperature fluctuates at night during breastfeeding. Thus, measuring "early morning" basal body temperature elevation after ovulation may not be reliable.
Withdrawal (Coitus Interruptus) or **Abstinence** (Also see chapter on **Barrier Methods and Withdrawal**)	May be used any time postpartum.	No effect on quantity of breast milk. Abstinence only is 100% effective. Withdrawal is less effective.	Withdrawal or long periods of postpartum abstinence not always practiced. Acceptable in cultures in which postpartum abstinence is traditional. Backup method needed if couple decides to resume intercourse.
Tubal Occlusion (See **Voluntary Surgical Contraception**)	May be performed immediately postpartum or within 48 hours, or else should be delayed until 6 weeks postpartum. **Ideal timing**: After recovery from delivery and once the health of the infant is more certain.	No effect on quantity of breast milk. Postpartum minilaparotomy is easiest to perform within first 48 hours of delivery.	Counselling and informed consent should take place prior to labour and delivery (during prenatal period).
Vasectomy (See **Voluntary Surgical Contraception**)	Can be performed anytime.	Not immediately effective.	Vasectomy performed at this time leads to less disruption of intercourse for the couple. Partner's contact with health care system may be a good time for man to use services.

Table 12-3: Postpartum Contraception for Non-Breastfeeding Women

Method	Timing
IUD	• Immediately postpartum by trained provider • Intra-operative following C-section • 4 to 6 weeks after child birth
Condom, Spermicides	• As soon as sexual intercourse has resumed
Progestin Injectable (Depo-Provera)	• Immediately after delivery • Any time in the in the first 6 weeks after childbirth • Any time after 6 weeks postpartum and it is reasonably certain that the client is not pregnant
Subdermal Implants (Norplant Implants)	• Immediately after delivery • Any time in the first 6 weeks after childbirth • Any time after 6 weeks postpartum and it is reasonably certain that the client is not pregnant
Female Sterilization	• Immediately postpartum • Within 48 hours after childbirth • 6 weeks after child birth
Male Sterilization	• Anytime after childbirth
Combined Oral Contraceptive Pills	• Start 3 weeks after childbirth

Table 12-4: Postpartum Contraception for Breastfeeding Women

Method	Timing
LAM	• Begin breastfeeding immediately after delivery • Highly effective for up to 6 months if fully breastfeeding and amenorrheic
Condoms	• When sexual activity is resumed
IUD	• Immediately postpartum by trained provider • Intra-operative following C-section • 4 to 6 weeks after childbirth
Female Sterilization	• Immediately postpartum • Within 48 hours after childbirth • 6 weeks after delivery
Male Sterilization	• Any time after childbirth
Progestin Injections	• 6 weeks after childbirth
Norplant Implants	• 6 weeks after childbirth
Combined Oral Contraceptive Pills	• 6 months after childbirth

CHAPTER THIRTEEN

POSTABORTION CONTRACEPTION

CHAPTER THIRTEEN

POSTABORTION CONTRACEPTION

13.1 AIM

Throughout the developing world, many women are trapped in a dangerous cycle of unwanted pregnancy and unsafe, often illegal, abortion. Although the importance of linking postabortion care and family planning services seems obvious, these two types of care rarely are offered together. Typically, emergency treatment services for postabortion complications do not include provision of or referral to family planning counselling and method delivery. As a consequence, women are denied access to the means of preventing future unwanted pregnancies as well as being exposed to the risk of additional unsafe abortions, both of which contribute to the poor overall health status of women in many countries.

For women with spontaneous abortion, linking postabortion care with family planning services allows women and their families increased access to family planning.

13.2 LINKING POSTABORTION CARE TO FAMILY PLANNING

Provision of emergency postabortion care may be one of the few occasions when a woman and her partner come in contact with the health care system. Therefore, it represents an important opportunity for providing contraceptive information and services.

Postabortion family planning should include the following components:

- Counselling about contraceptive needs in terms of the client's reproductive goals
- Choices among various methods
- Assurance of contraceptive resupply
- Access to follow-up care
- Information about the need for protection against STIs

Postabortion family planning should also be based on an individual assessment of each woman's situation:

- her personal characteristics,
- clinical condition, and
- the service delivery capabilities in the community where she lives.

Even if clients cannot receive comprehensive postabortion care at a given facility, or if assessment suggests complete abortion and therefore uterine evacuation is not necessary, family planning should be offered.

13.3 COUNSELING FOR POSTABORTION FAMILY PLANNING SERVICES

Family planning counselling for women during postabortion care requires special considerations. Women experiencing loss of a pregnancy are in a situation that is not planned for. Previous decisions concerning family planning made during antenatal care may no longer be appropriate. As in any situation, the needs and interests of the client must be respected. For detailed information see Chapter One: Counselling and Informed Choice.

13.4 WHEN TO START POSTABORTION FAMILY PLANNING

Postabortion family planning services need to be initiated immediately because ovulation may occur as early as 11 days following treatment of incomplete abortion and usually occurs before the first menstrual bleeding. All women receiving postabortion care need counselling and information to ensure they understand:

- that they can become pregnant again before the next menses;
- that there are safe, effective contraceptive methods to prevent pregnancy temporarily or permanently; and
- where and how they can obtain family planning services and appropriate methods.

13.5 POSTABORTION CONTRACEPTIVE METHODS

All modern methods of contraception are appropriate for use after incomplete abortion so long as the service provider:

- screens the woman for the standard precautions for use of a particular method, and
- gives adequate counselling.

It is recommended that women not have intercourse until postabortal bleeding stops. Recommendations for contraceptive use following abortion are similar to those for interval use (i.e., women who have not been pregnant within the last 4 to 6 weeks and are not breastfeeding).

The following pages (adapted from *Postabortion Care: A Reference Manual for Improving Quality of Care*) outline the factors relevant to the **postabortal** use of various contraceptive methods.

Table 13-1: Postabortal Use of Various Contraceptive Methods

Method	Timing After Abortion	Characteristics	Remarks
COCs and Progestin Only Contraceptives (POCs) (implants, progestin injectable contraceptives (PICs) and POPs) (Also see chapters on **Combined Oral Contraceptive Pills, Injectable Contraceptives, and Subdermal Implants**)	Start COC or POC use immediately, preferably on the day of treatment.	• Can be started immediately even if infection is present. • Highly effective. • Immediately effective. • Minimize blood loss (i.e., improve anaemia), especially COCs.	• Provide client with adequate supply for 3 months and refer appropriately for ongoing care.
IUDs (Also see chapter on **IUDs**)	**First Trimester**: • IUDs can be inserted immediately if high-risk condition and presence of infection can be ruled out. **Second Trimester**: • Delay for 4 weeks **unless** equipment and expertise (trained provider) are available for immediate postabortal insertion. • Be sure there is no uterine infection. If infection suspected, delay insertion until the infection has been resolved for 3 months.		• The woman should be counselled before the treatment. If she selects an IUD and the conditions are favourable, it can be inserted immediately after the manual vacuum aspiration (MVA) treatment. • If adequate counselling and informed decision-making cannot be guaranteed, delay insertion and provide a temporary interim method. • Following second trimester abortion, the uterine cavity is larger and the risk of perforation during insertion is greater.
Barriers (condoms) **and Spermicides** (foam, cream, suppositories, tablets) (Also see chapter on **Non-clinical Methods)**	• Start use as soon as intercourse is resumed.	• Good interim method if initiation of another more effective method must be postponed.	

Method	Timing After Abortion	Characteristics	Remarks
Natural Family Planning (NFP) (Also see chapter on **Postpartum Contraception and LAM)**	• NFP is not recommended for immediate postabortion use.		• The first ovulation after an abortion will be difficult to predict and the method is unreliable until a regular menstrual pattern has resumed.
Tubal Occlusion (Also see chapter on **Voluntary Surgical Contraception**)	• Technically, tubal occlusion (minilaparotomy) can be performed immediately after treatment of abortion complications unless infection or severe blood loss is present. • Do not perform until infection is fully resolved (3 months) or injury healed.	• Minilaparotomy after a first trimester incomplete abortion is similar to an interval procedure; after a second trimester incomplete abortion it is similar to a postpartum procedure.	• Adequate counselling and informed decision-making and consent must **precede** voluntary sterilization procedures (tubal occlusion); this often is not possible at the time of emergency care.
Vasectomy (Also see chapter on **Voluntary Surgical Contraception**)	• May be performed at any time. • Timing is not related to abortion.	• Not immediately effective; therefore an interim contraceptive method must be used.	• Adequate counselling and informed decision-making and consent must **precede** voluntary sterilisation procedures (vasectomy); this often is not possible at the time of emergency care.

Table 13-2: Guidelines for Contraceptive Use by Clinical Condition Following Abortion

Clinical Conditions	Precaution	Recommendation
Confirmed or Presumptive Diagnosis of Infection • Signs and symptoms of sepsis/infection • Signs of unsafe or unclean induced abortion • Unable to rule out infection	**IUDs**: Do not insert until risk of infection ruled out or infection fully resolved (approximately 3 months). **Female voluntary surgical sterilisation**: Do not perform procedure until risk of infection ruled out or infection fully resolved (approximately 3 months).	**COCs**: can begin use immediately. **POCs**: can begin use immediately. **Barriers and Spermicides**: can be used when sexual activity is resumed. **Male Partner Sterilization**: at any time if desired.
Injury to Genital Tract • Uterine perforation (with or without bowel injury) • Serious vaginal or cervical injury, including chemical burns	**IUDs**: Do not insert until serious injury healed. **Spermicides**: Do not use until vaginal or cervical injury healed. **Female voluntary surgical sterilisation**: Do not perform procedure until serious injury healed.	**COCs**: can begin use immediately. **POCs**: can begin use immediately. **Condoms**: can be used when sexual activity is resumed. **Male Partner Sterilization**: at any time if desired.
Severe Bleeding (haemorrhage) and Related Severe Anaemia (Hb less than 7g/dl or Hct less than 20%)	**Female voluntary surgical sterilisation**: Do not perform procedure until the cause of haemorrhage or anaemia resolves.	**COCs**: can begin use immediately (beneficial when haemoglobin is low). **Barriers and Spermicides**: can be used when sexual activity is resumed. **Male Partner Sterilization**: at any time if desired **Implants**: Delay insertion until acute anaemia improves. **PICs**: Delay injection until acute anaemia improves. **POPs**: Use with caution until acute anaemia improves. **IUDs**: (inert or copper-bearing): Delay insertion until acute anaemia improves.

CHAPTER FOURTEEN

CONTRACEPTION AND STIs

CHAPTER FOURTEEN

CONTRACEPTION AND STIs

14.1 AIM

Since the concept of STIs was first described, the spectrum of diseases in this category has expanded greatly. Currently, more than twenty microorganisms are known to be transmissible through sexual intercourse. The complications arising from STIs, in particular PID, present significant individual and public health concerns. In addition, transmission of HIV/AIDS and HBV is facilitated by ulcerative genital conditions, and possibly vaginitis and cervicitis.

To address these public health issues and help the greatest number of clients, practical and economical STI diagnosis and treatment programs are required. In Nepal, this is based on a syndromic approach to diagnosis and therapy at the primary care level.

It is important to provide STI screening for family planning clients. Sexually transmitted disease and family planning services overlap substantially. STIs frequently are encountered in family planning clients, especially in certain high-risk groups (e.g., clients who have more than one sexual partner). Furthermore, individual contraception methods have a range of characteristics—from protecting against STI transmission to increasing the risk of complications from STI infection. The main linkages between contraception and STI services are:

- Prevention
- Client screening
- Counselling

14.2 SERVICE DELIVERY

14.2.1 Clinical Assessment

Prevention

- high-risk sexual behaviours
- the protective benefits or disadvantages of specific contraceptive methods
- condom use for protection against transmission of STIs (and the more limited protection provided by spermicides, COCs and Depo-Provera.

14.2.2 Client screening

The risk of STIs in all clients should be assessed. Effective screening depends on the identification of the presence of STI signs or symptoms and risk assessment. Complicated protocols and costly laboratory/microscopy tests are not required. In order to assess STI risk and effectively screen clients, the service provider should:

- be knowledgeable about high-risk sexual practices

- be aware of the signs and symptoms of STIs
- be aware of which STIs are particularly common in the client population
- carefully evaluate clients in whom STIs are suspected, based on their medical history or physical examination findings.

14.2.3 STI screening history should include

- Do you have a vaginal/penile discharge?
- In the past year, have you had a genital tract problem such as a vaginal/penile discharge, ulcers or skin lesions in your genital area?
- Has your sex partner been treated for a genital tract problem, such as discharge from the vagina/penis or swollen groin glands, in the last 3 months? Which?
- Do you know if your sex partner has other sex partners?
- Are you or your partner in a profession that puts you at high risk (e.g., commercial sex worker, driver, military)?
- Have you had more than one sex partner in the last 3 months?
- Do you think that you might have a STI?

14.2.4 Counselling issues

Clients identified during the screening history to engage in high-risk sexual behaviours should receive counselling on the risks and benefits of particular contraceptive methods. Two forms of contraception may be required: a highly effective form of contraception to prevent pregnancy, and condoms to prevent STIs. Therefore, it is important to offer condoms to all clients, regardless of which contraceptive method they choose. For detailed information see Chapter One: Counselling and Informed Choice.

14.2.5 What are STIs?

- STIs are sexually transmitted infections caused by microorganisms (bacteria and viruses).
- Most STIs (e.g., gonorrhoea, syphilis) can be treated. All can be prevented; and if **not** prevented, early diagnosis and treatment can decrease the possibility of serious complications such as infertility in both women and men.
- Some reproductive tract infections are not generally sexually transmitted, such as yeast vaginitis and bacterial vaginosis.

Consequences of STIs

- Increased risk of HBV and HIV/AIDS transmission
- Ectopic pregnancy (7–10 times increased risk in women with history of PID)
- Increased risk of cervical cancer Human Papilloma Virus (HPV)
- Chronic abdominal pain (18% of females with a history of PID)
- Infertility:

- 20–40% of males with untreated chlamydia and gonorrhoea
- 55–85% of females with untreated PID (8–20% of females with untreated gonorrhoea develop PID)

In addition, infants can be infected at birth with blinding eye infections and pneumonia, suffer central nervous system damage or die as a result of STIs.

14.3 Clinical Procedure

In primary health care facilities, diagnosis usually rests solely on clinical findings (signs/symptoms) or risk assessment. For secondary health care facilities, where pelvic examinations can be done and a microscope and simple laboratory testing are available, greater accuracy in managing the most common STIs is often possible. For further information on the clinical findings, diagnosis and treatment of STIs, refer to HMG/N's *National STI Case Management Guidelines.*

If a client or partner has any clinical findings of STIs, both the client and partner should be treated. Many methods of contraception are appropriate in this setting, should the client be currently using or have an interest in using family planning services.

Table 14-1: Counselling Outline and Clinical Recommendations

Method	Remarks Regarding STIs
COCs (Also see chapter on **Combined Oral Contraceptives Pills**)	• No protection against STIs (e.g., HBV, HIV/AIDS). • If high risk behaviour or previous STI detected in screening history, concurrent use of condoms is recommended. • Some protective effects against PID.
POCs (implants, PICs and POPs) (Also see chapters on **Depo-Provera and Subdermal Norplant Implants**)	• No protection against STIs (e.g., HBV, HIV/AIDS). • If high-risk behaviour or previous STI detected in screening history, concurrent use of condoms is recommended. • POCs offer some protective effects against PID.

Method	Remarks Regarding STIs
IUDs (Also see chapter on **IUDs)**	• No protection against STIs (e.g., HBV, HIV/AIDS). • Should not be used by women at risk for or with clinical findings of STIs. If such a client insists on using an IUD, concurrent use of condoms is required. • Should not be used by women with current, recent (less than 3 months) or recurrent PID. • If a clinical finding of a simple vaginal infection is present (candidiasis or bacterial vaginosis), treat and recheck before IUD is inserted.
Condoms (Also see chapter on **Non-Clinical Methods**)	• Protect against STIs (e.g., HBV, HIV/AIDS). • To be fully effective, condoms must be worn at all times during genital contact, and with every act of intercourse.
Spermicides (Foam) (Also see chapter on **Non-Clinical Methods**)	• Some protection against STIs (e.g., HBV, HIV/AIDS).
Voluntary Surgical Contraception (tubal occlusion and vasectomy) (Also see chapter on **Voluntary Surgical Contraception**)	• No protection against STIs (e.g., HBV, HIV/AIDS). • If high-risk behaviour or previous STI detected in screening history, concurrent use of condoms is recommended.

CHAPTER FIFTEEN

CONTRACEPTION FOR WOMEN OVER 35

CHAPTER FIFTEEN

CONTRACEPTION FOR WOMEN OVER 35

15.1 AIM

Women over the age of 35 years are in need of safe and effective contraception because pregnancy can carry increased health hazards (morbidity and mortality) for older mothers and their babies. Fertility declines in women over 35 years, resulting in less attention paid by these women to contraceptive protection. Pregnancies, however, are possible and therefore contraception should be provided.

There are specific problems related to pregnancy in this age group:

- Maternal mortality among women in their forties is about five times greater than that of women in their twenties.
- Perinatal mortality doubles as maternal age doubles.
- Chromosomal abnormalities, particularly Down's syndrome, increase.
- Spontaneous abortion rates increase.

The possibilities of these problems make the importance of reliable contraception for this age group very clear.

In the past, because of a higher dose of estrogen in early COCs (more than 50 μg EE), women over 35 were considered to be at increased risk for serious complications (heart attack, stroke and blood clotting problems). Recent data, however, based on women using the newer low-dose COCs (30-35 μg EE), show that older women now can safely use hormonal methods, until they are menopausal and beyond, if they have **no additional** risk factors.

Although some women may be concerned about the risk of breast cancer if they continue to use hormonal methods after age 35, current data show no overall association between breast cancer and increasing duration of COC use. Women over 35 years who smoke, however, should be encouraged to stop smoking regardless of whether they are using COCs.[1] In summary, women over 35 years can continue to use contraceptive methods, including low dose COCs.

In **Table 15-1** (following), only those factors relevant to the use of specific contraceptives by women over 35 years are discussed.

[1] Definitions of heavy smoking vary internationally. Throughout this *National Medical Standard*, the WHO definition of 20 cigarettes or more per day is used.

Table 15-1: Considerations for Women Over 35

Method	Remarks
COCs (Also see chapter on **Oral Contraceptive Pills**)	• COCs should not be used by women over 35 years of age who are heavy smokers (>20 cigarettes per day). These women should be encouraged to stop smoking. • Low-dose COCs may be a source of estrogen replacement during perimenopause providing both the needed contraception and relief from uncomfortable symptoms of menopause.
POCs (implants, PICs and POPs) (Also see chapters on **Subdermal Norplant Implants and Depo-Provera**)	• POCs can be used safely by women over 35 years of age and in the perimenopausal years (40–50s) even if they are heavy smokers. • Implants are highly recommended for women over 35 who want long-term contraception, especially if client has had trouble using another method or does not want voluntary sterilization.

IUDs
 	
(Also see chapter on **IUDs)**
	• May be used safely by older women if not at risk for STIs (e.g., HBV, HIV/AIDS).
	
	• May be the preferred method for older women because newer IUDs (copper- and progestin-releasing):
	  • are highly effective,
	  • require no follow-up care unless there are problems, and
	  • are long-term methods (Copper T 380A effective at least 12 years).
	
	• Progestin containing IUDs reduce menstrual flow; heavy menses are a frequent complaint in this age group.

Condoms (Also see chapter on **Non-Clinical Methods**)	• Only method that protects against other STIs (e.g., HBV, HIV/AIDS). • Best used by women who can predict acts of intercourse and who are highly motivated to avoid pregnancy.
Voluntary Surgical Contraception (tubal occlusion and vasectomy) (Also see chapter on **Voluntary Surgical Contraception**)	• Appropriate for clients/couples who are certain about desire for permanent contraception.

CHAPTER SIXTEEN

CONTRACEPTION FOR ADOLESCENTS

CHAPTER SIXTEEN

CONTRACEPTION FOR ADOLESCENTS

16.1 AIM

Adolescence is the period of physical, psychological and social maturing from childhood to adulthood. The term "adolescent" refers to individuals between the ages of 10–19 years. In Nepal, adolescents comprise more than one fifth (22%) of the total population. A large proportion of adolescents, both married and unmarried, are sexually active. For many reasons their contraceptive needs require special consideration.

Unmarried teenagers tend to have unpredictable lifestyles that revolve around such issues as asserting their independence and gaining acceptance amongst their peers. Many adolescents have difficulty adjusting to this stage in their life, especially in coping with their sexuality. Although sexual activity may be infrequent, relationships are often temporary and multiple sexual partners are possible. In general, contraception is either not used at all, or its use is irregular or incorrect.

In our society, marriage of adolescents is still widespread. These adolescents face many of the same issues as teenagers of the same age who are unmarried. In addition they are usually under pressure from their families and society to bear children soon after marriage, a practice which increases the risk of maternal and neonatal morbidity and mortality.

Although parents and adults would prefer unmarried adolescents not to be sexually active until they are able to appreciate the risk fully, often adolescents do not wait. Married or unmarried adolescents face several potential problems in relation to their reproductive health:

- High risk of contracting STIs (including HBV and HIV/AIDS) through unprotected sexual intercourse
- Unwanted pregnancy resulting in unsafe abortion
- Early childbearing (less than 19 years) resulting in high risk of complications for both mother and child due to the mother's physical immaturity with respect to labour and birth
- Especially for females, early childbearing leading to reduced opportunities for further education and employment that in turn affect their social and cultural development

Therefore it is very important that all adolescents have access to good counselling and effective family planning, regardless of their marital status.

16.2 SERVICE DELIVERY

16.2.1 Counselling and Informed Choice (For more detailed information, refer to Chapter One: Counselling and Informed Choice.)

Family planning counselling and services should be made easily available to adolescents. The same general counselling principles that are used for all family planning clients apply to adolescent counselling. These are described in Chapter One: Counselling and Informed Choice**.** Beyond these routine recommendations, counsellors and providers should be more sensitive when dealing with adolescents. Counsellors may need special training in dealing with the particular needs and concerns of adolescents and should:

- create a safe environment in which adolescents can express their needs;
- build rapport with adolescents through use of language they are familiar with;
- ensure confidentiality, including agreeing not to discuss decisions with parents, as appropriate; and
- be open and nonjudgmental in response to their questions and expressions about their sexuality.

Counselling for adolescents should include discussion of the:

- Benefits of certain contraceptive methods (condoms) in protecting against STIs (including HBV and HIV/AIDS) as well as preventing pregnancy
- Safety of contraception in not affecting long-term fertility (ability of women to achieve pregnancy once the contraceptive is discontinued)
- Appropriate sex education that enables adolescents to develop the knowledge and confidence to make decisions related to their sexual behaviour, including the decision not to engage in sexual intercourse until they are ready to do so
- Sexuality and reproductive health with emphasis on adolescent issues: self-esteem, appearance, negotiating unwanted sexual advances, pressure from peers or partners

Facilities should be planned and developed so that they will attract adolescents who will not feel threatened or embarrassed to seek counselling and other family planning services. The availability of contraceptive services for adolescents should not depend on their marital status. Unnecessary clinical procedures should be avoided that may discourage adolescents from using them (e.g., pelvic examination for teenagers requesting COCs).

16.3 EMERGENCY CONTRACEPTION

Emergency contraception has an important place in family planning services for adolescents because young people may have difficulties in obtaining contraceptive supplies and are often likely to have unplanned and unprotected sexual intercourse. Emergency contraception can be used as a back-up in case of condom breakage or improper use of the withdrawal method. It is important to publicize the availability of emergency contraception together with thorough counselling.

- All emergency contraception methods are effective and safe for use in teenagers.

- IUDs are less desirable except for parous adolescents with low risk of STIs.

For more detailed information refer to Chapter 17: Emergency Contraception.

16.4 CONTRACEPTIVE METHODS

Under this section describing contraceptive methods, only factors relevant to their use by adolescents are provided. Detailed information for each method is given in the relevant chapter on that method.

Various methods of contraception are suitable for adolescents. **Effective contraception** for adolescents, married or unmarried, is especially important because of more serious consequences of unwanted pregnancies. An important consideration is better protection against possible STIs. It should be remembered that adolescents may require two forms of contraception: a highly effective form of contraception to prevent pregnancy **and** condoms to prevent STIs.

The following factors need to be considered when counselling adolescents and considering appropriate methods for an individual:

- Age—females should be past the menarche
- Social, cultural, and environmental factors
- Sexual habits (e.g., frequency and number of partners)
- Parity
- Possible risk in the event of unwanted pregnancy and the need for highly effective methods
- Medical contraindications—uncommon in this age group

Table 16-1: Counselling Outline and Clinical Recommendations

Method	Remarks Regarding Adolescents
COCs (Also see chapter on **Combined Oral Contraceptive Pills**)	• May be safely used once an adolescent has started menstruating. • Requires strong client motivation. Forgetfulness and irregular use increase method failure. • Conditions requiring precautions are rare in adolescents. • No protection against STIs (e.g., HBV, HIV/AIDS); therefore adolescents may need to use condoms as well.
POPs (Also see POCs section in chapter on **Combined Oral Contraceptive Pills**)	• POPs have a higher failure rate than COCs, especially when the instructions are not strictly followed. • No protection against STIs (e.g., HBV, HIV/AIDS); therefore adolescents may need to use condoms as well.

Method	Remarks Regarding Adolescents
Implants (Norplant) (Also see chapter on **Subdermal Implants**)	• Recommended for adolescents who want intermediate or long-term effective contraception, especially if they had trouble with compliance while using another method. • Should be well counselled about the possibilities of weight gain, skin disorders, irregular bleeding/spotting which can be bothersome to adolescents. • No protection against STIs (e.g., HBV, HIV/AIDS), therefore adolescents may need to use condoms as well. • Implants are visible beneath the skin. • Lack of need for supplies makes this method attractive to adolescents.
Depo-Provera (Also see chapter **on Depo-Provera**)	• Highly recommended for adolescents who require intermediate-duration effective contraception, especially if they had trouble with compliance while using another method. • Should be well counselled about the possibilities of weight gain, skin disorders, irregular bleeding/spotting which can be bothersome to adolescents. • Lack of need for supplies and non-visibility make this method attractive to adolescents. • Some studies suggest that use of Depo-Provera in adolescents (below 16) within 2 years of menarche may pose a risk of osteoporosis. • No protection against STIs (e.g., HBV, HIV/AIDS); therefore adolescents may need to use condoms as well.
IUDs (Also see chapter on **IUDs)**	• Can be an adequate option for parous adolescents with low risk of STIs who require long-term protection against pregnancy. • Not recommended for adolescents with multiple sex partners. Thorough counselling is essential.
Condoms (Also see chapter on **Non-Clinical Methods**)	• Protects against STIs (e.g., HBV, HIV/AIDS). • Very effective only if used properly. • Counselling on the availability of emergency contraception should be given in case of condom breakage. • Should be made widely available for adolescents. • Provides immediate protection. • Not clinic dependent. • Requires planning and couple motivation with each act of intercourse. Not always at hand during unplanned intercourse.
Spermicide (Foam) (Also see chapter on **Non-Clinical Methods**)	• Some limited protection against STIs (e.g., HBV, HIV/AIDS), but less than condoms. • Requires planning and motivation with each act of intercourse. Not always at hand during unplanned intercourse.
Withdrawal (Coitus Interruptus) and **Abstinence** (Also see chapter on **Non-Clinical Methods**)	• Withdrawal may be the only method available to many adolescents. They should be fully informed about the technique. • Withdrawal has a high failure rate and counselling on the availability of emergency contraception should be given. • Withdrawal offers no protection against STIs (e.g., HBV, HIV/AID).
Voluntary Surgical Contraception (tubal occlusion and vasectomy) (Also see chapter on **Voluntary Surgical Contraception**)	• Permanent method not appropriate for adolescents in most circumstances.

CHAPTER SEVENTEEN

EMERGENCY CONTRACEPTION

CHAPTER SEVENTEEN

EMERGENCY CONTRACEPTION

17.1 AIM

Emergency contraception is contraception provided to women to prevent unintended pregnancy following an unprotected act of sexual intercourse. The term emergency contraception is preferred over post-coital contraceptives because it also implies that the method is not for regular use.

In situations of unprotected intercourse, or situations of method failure (e.g., condom breakage), highly effective emergency methods are available to prevent unwanted pregnancy. Unfortunately, few couples are aware of the availability and safety of such methods. Health care providers should regularly inform clients about emergency contraception and family planning programs should make emergency contraception available and accessible by:

- providing emergency contraception services every day;
- having numerous providers who are familiar with its use;
- allowing packaging of oral contraceptives for use as emergency contraception; and
- allowing providers who do not typically initiate oral contraceptive pills (i.e., MCHWs or VHWs) to provide the method and counsel clients to seek regular contraceptive services

17.1.1 Types of Emergency Contraception Available/Approved in Nepal

In Nepal, where emergency contraception is available, it is important that women who may need this service (including those using barrier methods) should be aware of it and know where they can easily obtain it. Ready access is important because of the short time period after unprotected intercourse during which emergency contraception is likely to be effective. Health professionals to whom these women may turn should either be able to give the treatment themselves or refer the women as a matter of urgency to a suitable health care facility. Insertion of an IUD with its necessary examination is more intrusive than the use of oral pills and may be unacceptable to some women, especially if they have only recently started sexual intercourse or are the victims of rape.

There are three main methods available in Nepal that can be used as emergency contraceptives. They are:

- Combined oral contraceptive pills (COCs)
- Intrauterine devices (IUDs)
- Progestin-only pills (POPs)

While all contraceptives are appropriate **before** intercourse, several methods also can be used within a short time **after** unprotected intercourse. Often called “morning after

pills," it is more appropriate to call them **secondary** or **emergency contraceptives** (refer to chapters on **COCs**). These names remove the idea that the user must wait until the morning after unprotected intercourse to start treatment or that she will be too late if she cannot obtain the pills or an IUD until the afternoon or night after intercourse.

17.2 SERVICE DELIVERY

17.2.1 Eligibility

Indications

Emergency contraception is meant to be used only following an unprotected act of sexual intercourse to prevent pregnancy. The following are a number of situations when a woman can use or may need to use emergency contraception:

- When no contraceptive method has been used
- In case of contraceptive accident or misuse, for example:
  - condom rupture, slippage or misuse
  - failed coitus interruptus
  - miscalculation of the periodic abstinence method
  - IUD expulsion
  - unprotected intercourse prior to the effective time of vasectomy
- When the woman has been a victim of sexual assault

If a woman is breastfeeding but not using LAM (refer to Chapter Twelve: Postpartum Contraception and LAM) and thinks she might be at risk of pregnancy, emergency contraception may be used.

Precautions

Risk of already being pregnant

Before providing emergency contraception, be sure the client is **not** already pregnant (i.e., she might have become pregnant in the previous month). Symptoms of early pregnancy may include:

- Breast tenderness
- Nausea
- Change in the last menses (light flow, short duration, etc.)

If pregnancy is suspected, **before** providing emergency contraception, counsel the client regarding her options and the theoretical risk of potential problems if she is already pregnant. In general, a one-time use of oral contraceptives as emergency contraception would have no impact on an early, unrecognised pregnancy.

Risk of becoming pregnant

The risk of becoming pregnant depends on the day of the woman's cycle in relation to ovulation. New data from a study indicate that the fertile period lasts only about 6 days, and ends on the day of ovulation (i.e., cycle days 9 to 14 of a 28-day cycle).

Use of emergency contraception during the fertile period reduces the risk of pregnancy by at least 75%. Overall, only 1–3% of women using emergency contraception become pregnant during that cycle. There is evidence that progestin-only emergency contraception is slightly more effective. If the woman has used hormonal emergency contraception and pregnancy does occur, the small doses of hormones are not harmful to the developing foetus and will not terminate a pregnancy.

Risk to clients with vascular problems

Women who are at increased risk of vascular problems (current or past blood clotting problems, heart attack or stroke) should be advised of a slight additional risk of a serious complication if they use COCs or estrogen-only pills. COCs taken for a short duration (2 days) in a physically active client, however, are highly unlikely to cause a serious problem even in women with these risks. In addition, pregnancy causes a much greater risk to these women. Therefore, do not withhold treatment if the client requests it.

Contraindications

There are no known contraindications to the use of hormonal emergency contraception. The dose of hormones used in emergency contraception is small and the pills are given for a short time, so the contraindications associated with continuous use of combined hormonal contraception do not apply. However, women known to be at higher risk of thromboembolism should consider levonorgestrel pills (POPs) or an IUD as an option.

IUDs

- If it is possible to remove the IUD at the next menses, some contraindications that apply to continuous use of IUDs do not apply.
- In case of pelvic infection or a condition that poses a risk of introducing infection (e.g., in a woman with purulent cervicitis) the use of an IUD should be avoided.
- The possibility that the woman may already be pregnant should be excluded, since insertion of an IUD increases the risk of abortion.

17.3 Clinical Procedure

Emergency contraception is prescribed as two oral doses, taken 12 hours apart, of combined estrogen and progestin (COCs) initiated within 72 hours of unintended exposure, or progestin alone (POPs) initiated within 72 hours of unintended exposure. Women may experience nausea, especially with the combined pill method, and an anti-emetic may be prescribed. Adequate absorption occurs in the first hour after ingestion, but if vomiting occurs before this interval the dose should be repeated with an anti-emetic.

IUD insertion within 5 days of unintended exposure is highly effective for prevention of pregnancy. Note that many circumstances leading to a need for emergency contraception are not compatible with safe use of the IUD (e.g., possible risk of infection). Clients who receive an IUD for emergency contraception should be followed up carefully to ensure that they remain good candidates for IUD use.

17.4 Clients Instructions and Follow-up

Clients who are provided emergency contraception should be counselled to expect a menses within 3–4 weeks. If they have not had a menses they should return to the clinic and a sensitive test for pregnancy should be performed. If positive, they should receive counselling and referral for antenatal care.

Table 17-1: Emergency Contraception

Methods	Timing	Remarks	Client Instructions
COCs (The Yuzpe method) (Also see chapter on **Combined Oral Contraceptive Pills**)	Should be taken within 72 hours of unprotected intercourse and repeated after 12 hours	• Effective (2% become pregnant) **Side effects:** • Nausea • Vomiting (see end of chapter for management) • Breast tenderness, headache, dizziness • Irregular uterine bleeding: Some women may experience spotting. If menstrual period is delayed, the possibility of pregnancy should be excluded. • If pregnancy is not prevented, counsel client for antenatal care.	**COCs (low-dose)** (30–33 µg EE) Take **4** tablets within 72 hrs ⬇ 12 hrs later ⬇ Take **4** more tablets **Total = 8 tablets**
Progestin-Only Pills (POPs) (Also see POPs section in **Combined Oral Contraceptive Pills**)	Should be taken within 48 hours of unprotected intercourse and repeated after 12 hours	• Effective (less than 3% become pregnant) • Same side effects as with COCs but significantly less severe and nausea, vomiting is minimal • If pregnancy is not prevented, counsel client for antenatal care (ANC)	**POPs** (0.75 mg levonorgestrel, e.g., Postinor®) Take **1** tablet within 72 hrs ⬇ 12 hrs later ⬇ Take **1** more tablet (Total dose = 1.5 mg of levonorgestrel) **OR** **POPs** (0.075 mg norgestrel, e.g., Ovrette®) Take **20** tablets within 72 hrs ⬇ 12 hrs later ⬇ Take **20** more tablets (Total dose = 3.0 mg of norgestrel)

Methods	Timing	Remarks	Client Instructions
IUDs (Also see chapter on **IUDs**)	Should be inserted within 5 days of unprotected intercourse	• Very effective (less than 1% become pregnant) • Few side effects • Provides long-term contraception as well • Failure increases with longer interval between unprotected intercourse and insertion • Insertion requires a minor procedure that must be performed by a trained service provider • Should **not** be inserted in women at risk for STIs (e.g., HBV, HIV/AIDS) • May not be advisable for young nulliparous clients	• Counsel client about post-insertion spotting. Help her understand how to distinguish this from a menstrual period.

Note: Mestranol 50 μg is available as part of a COC pill in some areas of Nepal. This estrogen is two thirds as potent as ethinyl estradiol and therefore should be regarded as a low-dose oral contraceptive pill equivalent to the 30–33 μg ethinyl estradiol pill.

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APPENDIX- A (I)

MASTER REGISTER

HMIS -1

Date

Serial No	Register No.		Age		Address		Type of Service	Fee Rs.
	New	Old	Male	Female	VDC/Municipality	Ward No.		

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APPENDIX- A (II)

MULTIPURPOSE CONTACT CARD

HMIS -2

District---------- Name of Facility----------

1. Master Register No:
2. Name of Client patient ---------- 3. Age: -------- 4. Sex: -----
5. Address: ----------
6. Types of services and register no.----------

6.1 Family Planning: Pills ☐ Depo ☐ Male VSC ☐
IUD ☐ Norplant ☐ Female VSC ☐

6.2 Diseases: Tuberculosis ☐ Leprosy ☐

6.3 T.T. ☐

Date of T.T. given	1	2	3	4	5

6.4 Maternal Health Service ☐

6.5 Other: ☐

Date	Complaints/Provisional Diagnosis	Treatment/Advice	Follow up Date	Signature

Note: Please bring this card while you return to the clinic

Appendix- 2

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APPENDIX- A (III)

HORMONAL FP CARD

HMIS -11

Reg. No: **Date**:

Pills 1 Depo 2 Norplant 3

Name of the Service Center/Facility……
Name of the client……
VDC/Municipality ……..

District: …….
District:…….
Ward No……

Introductory Details	Husband	Wife
Name, Surname		
Age		
Education		
Occupation		

Birth details till date

Total live birth: Son ____ Daughter ____

Total living children: Son ____ Daughter ____

Age of the living sons ____ ____ ____ ____

Age of the living daughters ____ ____ ____ ____

FP contraceptive used before: Yes 1 No 2

If Yes which one:

1 Condom 2 Pills 3 Depo 4 IUD 5 Norplant 6 Others …

Last Menstrual Period:……..
Pills starting date: …….
Medical Details:……

Name and Surname of the record keeper: ……..
Post……

1. Jaundice Yes No
2. Legodema and Dyspnea Yes No
3. Severe headaches Yes No
4. Legodema and pain during Pregnancy Yes No
5. Diabetes Yes No
6. Breast Lumps Yes No
7. Regular Menstrual Cycle Yes No
8. Spot bleeding Yes No
9. Bleeding during Menstrual Cycle Little Excessive Normal

Appendix- 3

Follow up, Supervision, Treatment and Advice

Date	Complaints/Provisional Diagnosis	Treatment/Advice	Follow-up Dates

Appendix- 4

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APPENDIX- A (IV)

NON- HORMONAL FP CARD

HMIS -12

Reg. No.: **Date:**

1 Vasectomy 2 Laparascopy 3 Minilaparotomy 4 IUD

Name of the service center/facility:……. District:…….
Name of the client: …….. District:…….
VDC/ Municipality……... Ward No……

Introductory Details	Husband	Wife
Name, Surname		
Age		
Education		
Occupation		

Birth details to date

Total Live birth Son ☐ Daughter ☐

Total living children Son ☐ Daughter ☐

Age of the living sons ☐ ☐ ☐ ☐

Age of the living daughters ☐ ☐ ☐ ☐

FP contraceptives used before: Yes 1 No 2

If Yes, which one:

1 Condom 2 Pills 3 Depo Provera 4 IUD 5 Norplant

6 Others……..

Physical Examination, Treatment and Advice:

Record Keeper: Name, Surname…….. Service Provider: Name, Surname…….
Designation…… Designation ……..
Signature…… Signature……..

Appendix- 5

Follow up, Supervision, Treatment and Advice

Date	Complaints/Provisional Diagnosis	Treatment/Advice	Follow-up Date

Appendix- 6

Appendix- 7

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APPENDIX- A (V)

FAMILY PLANNING REGISTER

HMIS-13

Pills | Depo | IUD | Norplant

Reg. No. 1	Date 2	S. No 3	Name/ Surname 4	Age 5	Name/ Surname of the husband 6	Address		Year: ----------											
						VDC 7	Ward No. 8	Name of month											
								Shra	Bh	Asw	Kar	Man	Pou	Magh	Fal	Cha	Bai	Jes	Ash

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APPENDIX- A (VI)

STERILIZATION REGISTER

HMIS-14

Registration No.	Date	Name, Surname	Age		Address			Total live birth	Total living children		Age of youngest child	Type of Sterilization			Doctors Signature
			Husband	Wife	District	VDC/Municipality	Ward No.		Son	Daughter		Vasectomy	Laproscopy	Minilap	

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NORPLANT/IUD REMOVAL REGISTER

APPENDIX- A (VII)

HMIS-15

S. No	Date of Removal	Client's Name, Surname	Address	Method		Implant			Reason for removal	Name of the Service Provider	Remarks
				Norplant	IUD	Date	District	Service Site			

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APPENDIX- A (VIII)

REFERAL SLIP

HMIS-25

Date of Referral: ----------

Name of the referral site: ----------

Name, surname of the referred person: ----------

Age: ---------- Sex: ----------

Address: ----------

Reason for refer: ----------

Services provided till date: ----------

Name of the person who referred: ----------

Designation: ----------

Name of the site: ---------- ----------

(Description of Service Provided and follow-up information)

Date of follow-up visit: ----------

Description of services: ----------

Name of person who provided information: ----------

Designation: ----------

Date: ---------- ----------

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APPENDIX- A (IX)

DEFULTER FOLLOW-UP SLIP

HMIS-26

Mr. /Mrs. /Miss----------

Please submit the report after follow-up for the under mentioned client to encourage him/her to have regular service.

1. Name, surname: ---------- Age: ---------- Sex: ----------
2. Address: VDC: ---------- Ward No.---------- Village: ----------
3. Head of household (Name, surname): ----------
4. Service received: ----------
5. Date need to be visited: ----------

Name: ----------

Designation: ----------

Date: ----------

(To be filled by the person who conducted follow-up of defaulter)

Date of contact: ----------

Reason for being defaulter: ----------

Signature: ----------

Date: ----------

Remarks:

APPENDIX- B (I)

NORPLANT INSERTION AND REMOVAL EQUIPMENT AND SUPPLIES

Non-Expendable Equipment		
Name of equipment/Supplies	**Unit**	**Quantity per set**
Scalpel handle	Piece	1
Syringe, glass 5 ml	Piece	1
Needle 20 Gauge x 4”	Piece	1
Mosquito forceps, curved 5”	Piece	2
Dissecting forceps	Piece	1
Forceps, circle, curved 5.5”	Piece	1
Norplant trochars with cannula	Piece	1
Sponge holding forcep	Piece	1
Small metal bowl	Piece	2
Scalpel blade size 11	Piece	1
Cheatle forcep with jar	Piece	1
Expendable supplies for 100 cases		
Instruments Wrapping cloth 18” sq	Piece	2 for each Norplant set
Arm draps with centre hole (Eye-towel) 12" sq	Piece	1 for each Norplant set
Small hand towel	Piece	1 for each Norplant set
Butterfly or plain band-aid	Piece	100
Sterile Gloves size 6 ½ with bag disposable	Pair	50
Sterile Gloves size 7 with bag	Pair	50
Gauze 4” X 4”	Pack	600
Roller bandage 3”	Roll	25
Norplant Implants	Set	100
Local anaesthetic 1% Xylocaine 30 ml	Vial	15
Bar soap	Piece	5
Betadine antiseptic solution 500 ml	Bottle	2

APPENDIX B (II)

NORPLANT SITE CERTIFICATION FORM

1. Staff:

At least one trained/and certified Norplant provider (paramedic, nurse or doctors)

1) Name: …… Post:…… Year trained: ……

2) Name:……. Post:…… Year trained:…….

2. Facility:

a) A clean private room isolated from public traffic
b) Provision of a good light source
c) Access to water source
d) Maintenance of adequate IP standards
    a. Handwashing facility
    b. Decontamination
    c. HLD or sterilization
    d. Manpower to process instrument

3. Equipment and supplies (See Appendix B I)

CERTIFIED BY: ……. **POSITION:** ……..

DATE: ……

APPENDIX C (I)

IUD EQUIPMENT AND SUPPLIES

Non-Expendable Equipment		
Name of equipment/Supplies	**Unit**	**Quantity per set**
Vaginal speculum, medium	Piece	1
Sponge holding forceps	Piece	1
Small metal bowl (Galley pot)	Piece	1
Cervical tenaculum/Volsellum	Piece	1
Uterine sound	Piece	1
Scissors, Long Handled	Piece	1
Instrument pan and cover	Piece	1
Torch/Flashlight, two cell	Piece	1
Long curved artery forceps	Piece	1
Cheatle forceps	Piece	1
Cheatle jar	Piece	1
Kidney Tray (Big size)	Piece	1
Eligator Forcep (for removal)	Piece	1
Small size curator (for removal)	Piece	1
Expendable Supplies for 100 cases		
Copper- T 380 A	Piece	100
Bar soap	Piece	5
Torch with batteries, size D	Piece	1
Surgical gloves, size 6	Pair	50
Surgical gloves, size 7	Pair	50
Surgical cotton 400 gms	Roll	2
Betadine solution 500 ml	Bottle	2
Instrument wrapping cloth 18" sq	Piece	2 per IUD set
Small hand towel (inside set)	Piece	1 per IUD set

APPENDIX C (II)

IUD SITE CERTIFICATION FORM

1. Staff:

At least one trained/ and certified Norplant provider (paramedic, nurse or doctors)

1) Name: …… Post:…… Year trained: ……

2) Name:……. Post:…… Year trained:…….

2. Facility:

a) A clean private room isolated from public traffic
b) Provision of a good light source
c) Access to water source
d) Maintenance of adequate IP standards
    a. Handwashing facility
    b. Decontamination
    c. HLD or sterilization
    d. Manpower to process instrument

3. Equipment and supplies (See Appendix C I)

CERTIFIED BY: ……. **POSITON:** ……..

DATE: ……

APPENDIX D (I)

VSC INFORMED CONSENT FORM

I, _____, the undersigned, (client's name) request that a sterilization via_____ be performed on my person. (specify the procedure)

I make this request of my own free will, without having been forced or given any special inducement. I understand the following:

1. There are temporary methods of contraception available to me and my partner.
2. The procedure to be performed on me is a surgical procedure, the details of which have been explained to me.
3. This surgical procedure involves risks, discomfort and complication in addition to benefits, both of which have been explained to me.
4. If the procedure is successful, I will be unable to have any more children.
5. The procedure is less then 100% effective.
6. The effect of the procedure is permanent.
7. I can decide against the procedure at any time before the operation is performed (and no medical, health, or other benefits or services will be withheld form me as a result).

_____ _____

Signature or mark of client Date

_____ _____

Signature of attending physician/ counselor or delegated assistant Date

If the client cannot read, a witness of the client's choosing, of the same sex, and speaking the same language must sign the following declaration:

I, the undersigned, attest to the fact that the client has affixed his/her thumbprint or mark in my presence.

_____ _____

Signature or mark of witness/guardian Date

APPENDIX D (II)

EMERGENCY DRUGS AND EQUIPMENT REQUIRED FOR VSC

Drugs:

SN	Contents	No. in Kit
1	Epinephrine (Adrenaline) 1:1000/ml vial	2
2	Dexamethasone (Decadron) 4 mg/ml in 2 ml vial	4
3	Naloxone (Lethidrone) 0.4 mg in 1 ml vial	1
4	Promethazine (Phenergan) 50 mg in 2 ml vial	2
5	Atropine 0.6 mg/cc in 1 ml vial	2
6	Diazepam (Calmpose) 5 mg/ml in 2 ml vial	2
7	Pethidine Chloride (Pethidine) 50 mg/ml in 2cc vial	2
8	Pheniramine (Avil) 25 mg/ml in 2ml vial	2
9	Pheniramine (Avil) 25 mg tablets	10 tablets
10	Lignocaine (Xylocaine) 1% or 2% 20ml vial	1
11	Pentazocine (Fortwin) 30 mg	10 tablets
12	Bottles Ringer's Lactate solution, 540 ml	2

Equipment:

13	Ambu Bag and Mask	1
14	Oxygen cylinder, regulator, flow meter and key	1
15	Oral airway	1
16	Nasal airway	1
17	3.0 Chromic gut suture with needle	2
18	Syringes and needles	5
29	Oxygen tubing and mask	1
20	IV Infusion sets	2
21	16 or 18 gauge IV cannulas	2

All staff should be familiar with the location and proper use of the emergency equipment and drugs.

APPENDIX D (III)

VSC SITE CRITERIA

1. Sterilization System:	A functioning autoclave with two drums by trained staff in of proper use of autoclave. Adequate space to clean sort and pack instruments and supplies. Place to wash and dry instruments/linen with adequate water supply.
2. Facility:	Adequate no. and size of rooms to accommodate all areas needed for VSC services, cleanable and having adequate lighting. If VSC services are at school or health facility, regular services should not be disrupted.
• OT:	Electricity and lights available with functioning generator backup, adequate space for OT team to perform work, able to isolate room from rest of facility.
• Scrub area:	Running water or temporary water tank situated adjacent to OT area should be present.
• Waiting, Registration, Screening, lab and recovery room:	All must have adequate lighting, privacy and size to comfortably manage clients and as workplace for staff. Private area for counseling and client screening.
• Staff housing:	In or near facility adequate and comfortable housing for VSC staff to sleep, relax and eat
• Storage area	Room to store supplies
• Toilet	Clean separate area with water supply
• Waste disposal area	Area to dispose waste properly.
• Compound	Parking area for VSC vehicle that is available for emergency transport of client and returning clients to residences
3. Equipment, Instruments and Supplies:	All equipment and supplies required for VSC services to be available and functional. Unusable or broken items must be repaired or replaced before services commence (see Appendix E (II) and F (II) for list of equipment and supplies)
4. Emergency Equipment/Supplies:	All emergency equipment and supplies [see Appendix D (II)] should be available
5. Medications:	All medications required for pre-surgery, intra-surgery must be available with adequate supplies All emergency medications must be available and in adequate supply
6. Staff:	Facility site manager must be identified all staff must be available and properly trained per standard

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APPENDIX E (I)

MINILAP/LAPAROSCOPY

1. Name of FacilityM 2. District: Reg. No.

Name of client:

I. MENSTRUAL HISTORY

Date of last menstrual period ☐☐☐☐☐☐

Duration of flows (in days) ☐

Intermenstrual bleeding Scanty Moderate Heavy

Discharge Normal Abnormal

II. MEDICAL HISTORY

	Yes	No
Pregnancy	☐	☐
Hypertension	☐	☐
Allergy	☐	☐
Jaundice	☐	☐
Abdominal mass	☐	☐
Diabetes	☐	☐
Postcoital bleeding	☐	☐

Others (Specify) _____

III. PHYSICAL EXAMINATION

Pulse: Resp: BP: Weight: Temp:

	Normal	Abnormal
Skin	☐	☐
Lungs	☐	☐
Heart	☐	☐
Abdomen	☐	☐

P/S Exam:
Discharge: Normal Abnormal

P/V Exam:
Uterus size: Normal Bulky
Uterus Position:
Mobility: Yes No
Uterine cervix: Unhealthy Healthy
Adenexa: Normal Abnormal

IV. LABORATORY

Hemoglobin: gm %

Urine: Glucose Yes No
Protein Yes No

Others _____

Signature of Lab. Tech .....…. Date .....

V. PRE OPERATIVE

Hours since last food or drink.....

Diazepam given.… mg .... minutes prior to surgery (P.O.)

VI. SURGICAL NOTE

.....
.....……
.....

Surgeon..... Assistant.....

Swab and instrument counted by…….

VII. TOTAL MEDICATION

Before surgery During operation

Given by .....Given by.....

After operation

Given by .....

VIII. MONITORING RECORDS

	BP	Pulse
Premedication:		
Prior to analgesia:	……	……
At the end of surgery:	…….	……
Recovery Room:	……	……
At time of discharge:	……	……

Additional Notes:

Wound bleeding:	Yes	No
Vomiting:	Yes	No
Bleeding PV:	Yes	No

Signature of operating Physician.....……

APPENDIX E (II)

EXPENDABLE SUPPLY ESTIMATES FOR LAPAROSCOPY AND MINILAP
(1,000 CASES)

LAPAROSCOPY		
Description	**Unit**	**Total Quantity Needed**
1. Roller Bandage, 3”	Roll	200
2. Cotton 400 gm	Roll	50
3. Gauze Cloth, 18 x 1 m	Than	20
4. Adhesive Tape 4”x 5m	Roll	50
5. Glove # 6.5	Pair	1,333
6. Glove # 7	Pair	333
7. Glove Powder, 1 lb	Packet	20
8. 5 cc Disposable Syringe	Each	1,000
9. Surgical Blade # 11	Each	1,000
10. Cu. Cut. Needle # 6/7/8	6 piece	20
11. Catgut Plain # 1/0	Each	250
12. Uristic (Ames)	Each	1,000
13. Atropine Inj. 6 mg/ 1 ml	Ampule	1,000
14. Xylocaine Inj. 1% 30 ml	Vial	500
15. Liq. Betadine, 500 ml	Bottle	50
16. Liq. Cidex, 5 lt.	Bottle	5
17. Rectified Spirit 450 ml	Bottle	10
18. Calmpose 5 mg Tablet	Each	2,000
19. Vit.B Complex Tablet	Each	14,000
20. Iron Sulphate	Each	14,000
21. Tab. Cetamol	Each	10,000
22. Falope ring band	Each	2,200
MINILAP		
Description	**Unit**	**Total Quantity Needed**
1. Roller Bandage, 3”	Roll	200
2. Cotton, 400 gm	Roll	20
3. Gauze Cloth, 18 x 1 m	Than	30
4. Adhesive Tape 4”x 5 m	Roll	50
5. Glove # 6.5	Pair	1,333
6. Glove # 7	Pair	333
7. Glove Powder, 1 lb	Packet	30
8. 5 cc Disposable Syringe	Each	1,000
9. 10 cc Disposable Syringe	Piece	1500
10. Surgical Blade # 10	Each	1,000
11.Cu. Cut. Needle # 10/ 11	Pack (1x6)	35
12. Round Body Needle # 10/11	Set	35

Description	Unit	Total Quantity Needed
13. Catgut Plain # 1/0	Each	500
14. Catgut Chromic 1/0	Each	500
15. Xylocaine Inj. 1% 30 ml	Vial	700
16. Liq. Betadine, 500 ml	Bottle	50
17. Virex	Pack	50
18. Rectified Spirit 450 ml	Bottle	10
19. Calmpose 5 mg Tablet	Each	2,000
20. Amoxcillin 250 mg Cap.	Each	12,00
21. Multivitamin Tablet	Each	14,000
22. Tab Iron	Each	14,000
23. Tab. Ibuprofen 400 mg	Each	10,000
24. Inj. Pethidine 50 mg	Ampule	750
25. Inj. Phenargan 50 mg.	Ampule	500
Or		
26. Inj. Fortwin (Pentazocine)	Ampule	1000
27. Inj. Atropine 0.6 mg	Ampule	1000

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APPENDIX E (III)

POSTOPERATIVE INSTRUCTIONS FOR THE FEMALE VSC CLIENT (WRITTEN AND ORAL)

1. Rest for 5 to 7 days. Resume normal activities as you gradually become more comfortable.

2. Avoid intercourse for 1 week and stop if it is uncomfortable.

3. Avoid strenuous lifting for one week to allow the incisions to heal.

4. Return to the clinic or contact the clinic or doctor promptly if you develop post-operative danger signs.

5. Take 1 or 2 analgesic tablets at 4 to 6 hour intervals if you need them for pain. (Do not use aspirin since it may promote bleeding).

6. You may bathe 48 hours after surgery, but avoid putting tension on the incision and do not rub or irritate the incision for 1 week. Dry the incision site after bathing.

7. Stitches will dissolve and do not require removal. (**Note:** this instruction must be modified if nonabsorbable sutures, such as silk, are used).

8. Return to the clinic 1 week after the procedure to make sure that the healing process is normal.

9. If you think you are pregnant at any time in the future, return to the clinic immediately. Pregnancy after female surgical contraception is rare. But if pregnancy does occur, there is an increased chance that it will be outside the uterus (womb). This is a dangerous condition and must be treated by a doctor. (**Note:** give name of doctor, clinic address, telephone number etc).

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APPENDIX F (I)

VASECTOMY

1. Name of facilityM 2. District Reg. No.

Name of clientM

I. MEDICAL HISTORY

	Yes	No
Previous Surgery	☐	☐
Allergy	☐	☐
Jaundice	☐	☐
Sexual Problem	☐	☐

Others (Specify) _____

II. PHYSICAL EXAMINATION

	Normal			Abnormal	
Scrotum	☐	☐	Hydrocele	☐	☐
Lungs	☐	☐	Vericocele	☐	☐
Heart	☐	☐	Hernia	☐	☐
Skin (Scrotal area)	☐	☐	Undescended Testes	☐	☐
			Previous Scrotal Surgery	☐	☐
			Scrotal Mass	☐	☐

Others (Specify) _____

III. OPERATIVE NOTE

Skin Preparation: Betadine Yes No

Local Anesthesia: Xylocaine 1% .....C.C.

Fascial interposition: Yes No

Suture of vas: Silk, chromic catgut, cotton thread

Fulguration: Yes No

Surgical notes: .....

.....

.....

Pain during procedure: None/Mild/Moderate/Severe

Intraoperative complications: Yes No

If yes, Explain with treatment given.....

.....

Assistant ..... Signed (Surgeon) .....

Date: ..... Date .....

IV. DISCHARGE NOTE

Wound OK: Yes No

If no (specify) .....

Follow - up appointment given: Yes No

Discharge instruction given: Yes No

20 Condoms given: Yes No

Signed ..... Date .....

APPENDIX F (II)

FACILITIES AND EQUIPMENT FOR VASECTOMY

Instrument Packs:

Depending on the anticipated number of clients at the operating facility, 10-20 instrument packs will be available. Each pack will contain the following items:

Instruments (No Scalpel Vasectomy)

Description	Unit	Quantity per set
1. Iodine Cup, 4 oz 1.5" high	Piece	1
2. Addison Forceps, 5"	Piece	1
3. Forceps, Artery, Straight, 51/2"	Piece	1
4. Forceps, Artery, Curved	Piece	1
5. Ringed Forceps, 4.0 mm ring	Piece	1
6. Ringed Forceps, 3.5 mm ring	Piece	1
7. Hemopoint/Dissecting Forceps for NSV	Piece	1
8. Iris Scissors, curved	Piece	1
9. Sponge Holding Forceps	Piece	1

Expendable Supplies		
Description	**Unit**	**Total Quantity Needed for 1000**
OTHER ITEMS[11]		
1. Gauze cloth 18 mts X 1 mt	Than	15
2. Cotton 400 gm	Roll	5
3. Gloves, sizes 6, 6.5, 7 and 7.5	Pairs	600
4. Glove powder 1 lb	Packet	20
5. Liq. Betadine 500 ml	Bottle	30
6. Tab. Cetamol 500 mg	Each	6000
7. Rectified Spirit 450 ml.	Bottle	10
8. Adhesive Tape 4" X 5"	Roll	10
9. Vit. B Complex Tablet	Each	14000
10. Xylocaine Inj. 1% 30 ml	Vail	180
11. Amoxycilling 250 mg. Cap	Each	1200
12. Virex	Pack	50
13. Disposable Syringe 5 ml with 1.5", gauge 23-24 needle	Each	1000
14. Black Silk or Cotton thread	Roll	5

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APPENDIX F (III)

POSTOPERATIVE INSTRUCTIONS FOR THE MALE VSC CLIENT (WRITTEN AND ORAL)

1. Following the surgery, return home and rest for about 2 days wearing a scrotal support. You may be able to resume your normal activities after 2 or 3 days.

2. Avoid strenuous physical exercise for 1 week. Strenuous exercise means hard physical exertion or lifting or straining that could bring pressure to the groin or scrotum.

3. Do not shower or bathe for the first 2 days after vasectomy.

4. The stitches will dissolve and do not have to be removed. (**Note:** this instruction must be modified if non-absorbable skin sutures, such as silk, are used or if there are no skin sutures) with NSV no stitches are applied.

5. You may resume sexual intercourse after 2 or 3 days if you feel that it would be comfortable; but remember, you are not sterile immediately. For many men, sperm will not be cleared from the tubes until after 20 ejaculations. Until then, use condoms or another method of birth control to prevent pregnancy. The best way of finding out if you are sterile is to do a semen study after 20 ejaculations.

6. If you have pain or discomfort, simple analgesics taken at intervals of 4 to 6 hours usually give adequate relief. (Note: Name and doses should be specified).

7. It is important for you to know what is normal and what is abnormal following your surgery. There will probably be some pain and swelling in the scrotal region; the scrotum may be somewhat discolored. This is normal and should not worry you. Occasionally, blood from a tiny blood vessel may escape into the scrotum at the time of surgery, and bleeding may continue. Notify the doctor or the health worker if you have any of the danger signals or if you notice any other unusual body changes.

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APPENDIX G (I)

SURGICAL COMPLICATION REPORT FORM

(This form should be filled by the physician who treated the complication and needs to submit to Family Health Division through the District Health Office/District Public Health Office or other concerning agency.)

Date:_____

1. Demographic Description of Clients:

Client's name: _____ Age: _____ Sex: M / F
Address: _____ VDC/Municipality, ____Ward, _____ District
Number of live births (For female client only) _____
Total number of pregnancies (For female client only) _____

2. Type of procedure/method:

__Minilaparotomy **__Laporoscopy** **__Vasectomy**

Other procedure (specify) _____
Other method (specify) _____
Date of procedure/method _____
Location of procedure/method _____
Name of service site where complication occurred _____
Date of onset of complication (day/month/year) _____/_____/_____

3. Type of complication(s):

A. Complication related to anesthesia:
__Respiratory arrest/depression __Cardiac arrest __Convulsions
__Allergic reaction __Other (specify) _____

B. Unintended injury:
__Injury to bladder __Injury to testicle
__Injury to fallopian tube __Injury to cervix
__Injury to bowel __Uterine perforation
__Other (specify) _____

C. Bleeding:
__Haemorrhage __Hematoma

D. Infection:
__Injection site abscess __Wound infection __Pelvic/Abdominal infection
__Scrotal __Other (specify) _____

E. Pregnancy: _____

F. Other complication (specify) _____

4. Treatment:

Duration of treatment _____

Briefly describe management of the complication:
_____
_____
_____
_____

5. Outcome:

_____
_____

6. Describe any change in practice, training, or procedure made to prevent a recurrence of this type of complication:

_____
_____
_____
_____

7. Name of physician offering treatment: _____

Signature: _____

Name of institution: _____

8. Costs:

Description:	**Amount**
Physician's Fees	_____
Medicine	_____
Transportation	_____
Food	_____
Hospital bed charges	_____
Other	_____
Total	_____

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APPENDIX G (II)

MINOR COMPLICATION REPORTING FORM

Name of Health Institution:_____ District:_____
Name of service provider who treated the complication:_____
Name of client: _____
Address of client: District: _____ Mun/VDC:_____
Type of FP methods used: _____
Place of FP method received:_____
Type of complications:
_____Wound infection _____Vaginal bleeding_____Hematoma___ Fever _____
Wound separation_____Weakness/anemia_____Pregnancy (failure)
Others (describe):_____

Cost (If any): _____
Name of In-charge:_____ Signature: _____

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APPENDIX G (III)

FAMILY PLANNING DEATH INVESTIGATION FORM

Investigator(s) Name and Title:

_____
_____
_____
_____

1. **Demographic Description of Client:**
   Client's name: _____ Age: _____ Sex: M / F
   Address: _____VDC/Municipality, _____
   Ward, _____ _____District_____
   Number of live births (For female client only) _____
   Total number of pregnancies (For female client only) _____

2. **Type of procedure/method:**
   __Minilaparotomy __Laparoscopy __Vasectomy
   __Other FP method (specify)_____

   Date of procedure/method _____
   Location of procedure/method _____
   Date of Death _____
   Location of death _____
   Probable Cause of Death _____

3. **Names of staff assisting with procedure/method**

Name	Title	Address

4. **Names of staff treating client at time of death**

Name	Title	Address

5. **Findings from site visit where procedure took place (infection prevention practices, condition of equipment and supplies, emergency preparedness, aseptic technique, condition of facility, etc.)**

_____
_____
_____
_____
_____
_____
_____

6. Findings from site visit where death occurred (if different location)

_____
_____
_____
_____
_____

7. Results of the Postmortem:

_____
_____
_____

8. Results of examination/tests of any supplies, medications or equipment that may have contributed to the death

_____
_____
_____
_____

List of people interviewed (surgeon, OT staff, paramedic staff, family members, client's friends, field staff)

Name	Title	Address

9. Attach a written narrative of the findings from the interviews conducted.

10. Attach copies of all medical records related to the procedure and the death (pre-op, intra-op, post-op, consent form, lab findings, readmission, referral hospital, second surgery, etc.)

11. Attach a written summary of the findings from a review of the records.

13. Conclusions from Investigation:

14. Describe any change in practice, training, or procedure to prevent a recurrence:

_____
_____
_____
_____
_____
_____

15. Follow-up Recommended:

_____
_____
_____
_____
_____
_____

Form completed by (name and title): _____

Signature: _____

Name of institution: _____

Costs:

Description:	**Amount**
Physician's Fees	_____
Medicine	_____
Transportation	_____
Food	_____
Hospital bed charges	_____
Other	_____
Total	_____

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